A STUDY OF THE DETERMINANTS OF DEBT TO EQUITY CONVERSION FOR CORPORATE DEBT RESTRUCTURING IN THAILAND

By

PAISARN CHAVANANGGOON

A Thesis Submitted in Partial Fulfillment
of the Requirements for the Degree of

Master of Business Administration

Graduate School of Business
Assumption University
Bangkok Thailand

July 2003

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ABSTRACT

This study investigates the determinants for debt to equity conversion of corporate debt restructuring in Thailand. The study reveals that there are 3 major factors determining debt to equity conversion, comprising of a firm's insolvency problems, growth opportunities, and corporate governance. This study indicates that firms that are in deep insolvency position are more likely to restructure their debt with debt to equity conversion. Besides, firms with low growth opportunities, which reflect the undervaluation, are even more likely to restructure their debt with debt to equity conversion. In addition, with regards to corporate governance, it is found that debt to equity conversion is less likely to happen in firms with high managerial ownership, while it is more likely for firms that banks previously held some portions of their shares with.

Conclusively, for corporate debt restructuring in Thailand, the decision on debt to equity conversion mainly depends on the insolvency problems and firm's growth opportunity; while corporate governance is also the factor but it not the major concern for the firms and banks to accept debt to equity conversion. Nevertheless, corporate governance still plays the important role in debt restructuring negotiation, as it is the real sentimental concern for both debtor and creditor.

According to this study, debt to equity conversion is not a favorable scheme for corporate debt restructuring in Thailand. This scheme would be considered as the last alternative for firms and banks to restructure their debts, especially, when firms really go bankrupt or in serious to desperate situations and when banks almost cannot recover their claims on debts. However, optimistically, debt to equity conversion is a useful debt restructuring methodology to assist firms from the distressed situation.

CHAPTER 1

GENERALITIES OF THE STUDY

1.1 Introduction

As a consequence of the economic crisis and transition in the foreign exchange system in 1997, Thai businesses suffered from a sharp drop in their sales together with the devaluation of Thai Baht. This stagnant situation lead to rise in financial institutions with non-performing loans (NPLs), which totaled to 2,697.2 billion Baht in the middle of 2002[1]. To assist the corporate sector and recovery of the Thai economy, obviously reflecting in Growth Domestic Product (GDP) figure of the country, the Thai government has established and implemented many policies, including corporate debt restructuring. The Thai government has facilitated corporate debt restructuring through both court-supervised business reorganization and private debt restructuring (out-of-court debt restructuring).

As mentioned earlier, the primary purpose of corporate debt restructuring is to reduce NPLs. This is a new challenge for the Thai government and other relevant parties, including business sector and financial institutions. Therefore, it is crucial to ensure that the designed restructuring scheme is not carried out with the objective of postponing or avoiding debt classification or provision requirements, or the avoidance of stopping interest accruals. Nevertheless, government statistics estimated NPLs in the middle of 1999 to be reduced from 47.1% of total credit portfolio to 10.5% at the end of 2001, including the influence from the transferring of NPLs of financial institutions to Thai Asset Management Corporation, TAMC[2].

Debt to equity conversion is one of the various interesting schemes, widely used in debt restructuring in emerging markets, such as Philippines, Argentina and Mexico. Fan and Sundaresan (2000) indicate the debt to equity conversion is appropriate for the severe debt restructuring alone. Additionally, some evidence gives us the ideas related to transfer

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[1]Source : Annual Report of Bank of Thailand (http://www.bot.or.th)

[2]Source : Annual Report of Bank of Thailand (http://www.bot.or.th)

of management control ownership from incumbent management and the firm's board of directors to bank lenders or other creditors. Gilson (1990) together along with the other evidences during the restructuring period, found that after the restructuring, the creditors, who have converted their debt to equity based on their restructuring schemes, generally turn out to be the new major shareholders of the firms. This indicates the influence of debt to equity conversion for the corporate debt restructuring.

Debt to equity conversion is new for corporate finance in Thailand. Its implications are interesting. Debtors and creditors, in making a decision on whether to apply debt to equity conversion in their debt restructuring, consider in trading-off their self-interests. Similar to other countries in Asia, most of the management and major shareholders of Thai firms belong to the same group, hereinafter called owner-management, (Wiwattanakantang (1999)). Owner-management generally originates from the single-family owned business style. In applying debt to equity conversion, owner-management will lose their power of control over the firm in exchange for the benefits of debt restructuring to avoid bankruptcy. Therefore, owner-management may avoid the dilution of their absolute controlling power by not taking debt to equity conversion with the lenders taken into consideration under debt restructuring. From the lender or the bank's side, they may be aversive to take an equity stake in other firms due to potential conflict of interest, agency cost and accounting loss from a provisions of equity taken in exchange of the bank's claims. Furthermore, they are legally limited in their capabilities to invest in other firms and their business transactions are also bound by Commercial Banking Act B.E. 2505. Therefore, in a regulatory sense, it is unlikely for banks to take equity stake in other firms.

Even though both banks and firms have their own limitations, debt to equity conversion is still recommended as a challenging restructuring alternative for sustainable debt restructuring, Gilson, John, and Lang (1990). Therefore, the factors that influence their decisions on debt to equity conversion are of interest in this study.

1.2 Statement of the Problem

In spite of being one of the recommended alternatives for debt restructuring in other countries such as Philippines, Argentina, and Mexico, debt to equity conversion is a

new challenge for corporate debt restructuring in Thailand. It is interesting that only 3% to 4% of total restructured debt applied the debt to equity conversion scheme in Thailand between 1999 to 2001. Thus, the study of its determinants is attractive and further study of its unpopularity is also motivating. "What are the determinants of debt to equity conversion for corporate debt restructuring in Thailand" is the defining problem of this research, while opportunity growth, insolvency problem, and corporate governance are the areas of interest. This study could be beneficially applied for a debt restructuring scheme, or to consider which type of firms should restructure their debt with an equity offer.

For the corporate area, since debt to equity conversion enables creditors to be shareholders of the firms, initiating the issues of conflict of interest to being in the two roles of creditors and shareholders and corporate governance or managerial ownership transfer from the former owner management to new shareholders; how these issues effect on taking debt to equity conversion as a restructuring scheme.

1.3 Objectives of the Study

The study of the determinants of applying the debt to equity conversion as a debt restructuring scheme in Thailand is the primary objective of this research. Through the selected methodology after the significance test, the results of this study are expected to be applied as a benchmark in determining that a selected company would restructure its debt with debt to equity restructuring scheme or not. This implies that the result of the study can signify which type of company would restructure its debt with the debt to equity conversion scheme. The result will be in terms of probability. If the probability is equal or greater than 0.5, it means the company's debt has high chance to be restructured with debt to equity conversion scheme; while the result of less than 0.5 represents the contrary effect. In addition, the explanations of why or why don't they employ debt to equity conversion when debt restructuring will also be provided for better understanding of the outcomes.

Conclusively, 2 main objectives of this study are

- The significant tests of selected determinants on decisions of debt to equity conversion are performed.

- The explanation why firms and creditors employ debt to equity conversion as an alternative debt restructuring scheme for their debt restructuring in Thailand is provided.

1.4 Scope of the Study

Due to its extensive and wide scope of debt to equity conversion relating to other areas of corporate finance in particular, conflicts of interest, capital structure and corporate governance, to confine the scope, this study emphasizes exclusively on the determinants of debt to equity conversion. However, the context of those relevant issues will be used to explain such motivations and will be discussed properly.

In addition, the previous researches, by Gilson, John, and Lang (1990), indicate the differences of private debt restructuring and on-court reorganization. Although we do believe there are some variations from the estimates based on these two regimes, this study constrains the effects resulted from the choice of debt restructuring regime. This is because those researches claim the benefits of private debt restructuring over on-court reorganization in term of bankruptcy costs, holdout problem, priority of claim, etc., which are out of the scope of this study.

1.5 Limitations of the Study

Due to the accessibility and reliability of the corporate information (especially financial data), all of the related corporate information will based exclusively on the information of listed companies under the Stock Exchange of Thailand for accurate results (the study's target firms are debt restructured companies listed on SET). The results of the study, therefore, do not apply to the debt restructuring information of non-listed companies, company limited, and small enterprises. Furthermore, as public debts issued from Thai corporates are rarely found and vary the market values of the firms' debts from time to time, this study, is directly related to the opportunity growth of the restructuring firms, and considers exclusively the company without any outstanding public debts.

In addition, due to many constraints in making decisions to lenders for the restructuring scheme; this study assumes that the lenders are rational decision makers, who consider the highest return from corporate debt restructuring not for others' benefit.

1.6 Significance of the Study

As mentioned earlier, debt to equity conversion restructuring scheme is a new challenge in Thailand, its implications have not yet been widely observed. Empirical studies suggest that the motivations of debt to equity conversion are rarely available with the absence of a precedent case directly supporting the appropriateness of debt to equity conversion for debt restructuring in Thai businesses.

Rationally, this study of the determinants of the debt to equity conversion for debt restructuring of Thai businesses would enhance the knowledge relating to employment of the restructuring alternative as an efficient measure for the resolution of NPL problems. Related parties can hopefully apply the results of this research as primary criteria in considering which kind of firms should restructure their debt through equity swap.

For the area of corporate finance, this study would furthermore broaden the concepts, since debt to equity conversion relates to a firm's corporate governance and bank's conflict of interest. This is because the debt to equity conversion restructuring scheme transforms the shareholders structure and even board of directors of the firm. This means debt-restructuring leads to reorganization for those who apply this scheme. As a result of the debt to equity conversion, creditors will become major shareholders, who can influence the firm's decisions, while owner-management will be diluted over the firm. However, the creditors, who have converted their debt to equity of the firm, have to confront with a conflict of interest of being both owners and creditors of the firm at the same time. These are encouragements to this study mainly on how these issues in corporate finance affect the decisions of firms and banks on debt to equity conversions.

Lastly, the contribution of this study would initiate subsequent studies on debt to equity conversion as to whether it is an effective debt restructuring scheme for corporate debt restructuring and whether it is appropriate for Thai business.

1.7 Definition of Terms

Term	Definition
Chapter 11	A section of the US Bankruptcy Reform Act 1978 that enables a business in financial difficulties to reorganize and to be protected from its creditors while it does so. *(Source : A dictionary of finance, Oxford New York, Oxford University Press)* The portion of the Bankruptcy Reform Act of 1978 that outlines the procedures for reorganizing a failed (or failing) firm, whether its petition is filed voluntarily or involuntarily. *(Source : Principle of managerial finance, Gitman, Eighth edition)*
Corporate finance	The funding of businesses, usually by banks and involving large corporations. *(Source : A dictionary of finance, Oxford New York, Oxford University Press)*
Corporate restructuring	The activities involving expansion or contraction of a firm's operations or change in its asset or financial (ownership) structure. *(Source : Principle of managerial finance, Gitman, Eighth edition)*
Covenant	An agreement or promise to do or not to do a particular thing; to enter into a formal agreement; to bind oneself in contract. *(Source : Law dictionary by Steven H. Gifis)* Used in loan agreement to specify the criteria with which the borrower has to comply. If these are not met, the borrower is neither in default or the loan ceases to be available. *(Source : Principle of managerial finance, Gitman, Eighth edition)*
Coverage ratios	Ratios that measure the firm's ability to pay certain fixed charges. *(Source : Principle of managerial finance, Gitman, Eighth edition)*

Term	Definition
Debt rescheduling	A negotiation concerning outstanding loans in which the debtor has repayment difficulties. The rescheduling can take the form of an entirely new loan or an extension of the existing loan repayment period, deferring interest or principal repayments. *(Source : Principle of managerial finance, Gitman, Eighth edition)*
Debt ratio	Measure the proportion of total assets financed by the firm's creditors. *(Source : Principle of managerial finance, Gitman, Eighth edition)*
Debt for equity swap (Debt to equity conversion)	Agreement between lender(s) and firm(s) involving a swap of shares of the firm(s) in exchange for old debt owed. *(Source : Dictionary of Banking Terms by Thomas P. Fitch, second edition)*
Dilution of equity	An increase in number of ordinary shares in a company without a corresponding increase in its assets or profitability. The result is a fall in value of the shares as result of this dilution. *(Source : A dictionary of finance, Oxford New York, Oxford University Press)*
Financial leverage	The use by company of its limited assets to guarantee substantial loans to finance its business. *(Source : Principle of managerial finance, Gitman, Eighth edition)*
Insolvency	The inability to pay one's debt when they fall due. In the case of individuals this may lead to bankruptcy and in the case of companies to liquidation. *(Source : A dictionary of finance, Oxford New York, Oxford University Press)*
Negative net worth	The value of an organization that has liabilities in excess of its assets. *(Source : A dictionary of finance, Oxford New York, Oxford University Press)*

Term	Definition
Pecking order	A hierarchy of financing beginning with retained earnings followed by debt financing and finally external equity financing. *(Source : Principle of managerial finance, Gitman, Eighth edition)*
Restrictive covenants	Contractual clauses in long-term debt agreements that place certain operating and financial constraints on the borrower. *(Source : Dictionary of Banking Terms by Thomas P. Fitch, second edition)*
Signal	A financing action by management that is believed to reflect its view with respect to the firm's stock value; generally, debt financing is viewed as a positive signal that management believes that the stock is "undervalued' and a stock issue is viewed as a negative signal that management believes that the stock is "overvalued". *(Source : Principle of managerial finance, Gitman, Eighth edition)*

1.8 Organization of the Study

This study is organized into seven chapters. Chapter 1 begins with the generalities of the study, including introduction, objectives of the study, statement of the problems, scope and limitations of the study, and other generalities. Chapter 2 reveals the overview of debt restructuring in Thailand. Chapter 3 reviews related literature and studies related issues on debt to equity conversion in Thailand. Chapter 4 describes the research framework connecting with the theoretical framework, conceptual framework, and hypothesis of the study, while the research methodology is presented in Chapter 5. Chapter 6 is the presentation of data and critical discussion of results. Chapter 7 provides a summary of the findings, conclusions, and recommendations of the study.

CHAPTER 2

OVERVIEW OF DEBT RESTRUCTURING IN THAILAND

Debt restructuring in Thailand has been conducted through two regimes, of out-of-court debt restructuring and on-court business reorganization. In the first era, non-performing loans have been tackled with the Corporate Debt Restructuring Advisory Committee (CDRAC) measurement (out-of-court debt restructuring). Despite its flexibility, with the absence of legal supervision of CDRAC process, on-court business reorganization based on amended Bankruptcy Act B.E.2542 has taken place with a full range of legal actions applied in solving NPL problems. Furthermore, due to time consumption and various legal processes, out-of-court debt restructuring with applicable legal views play an important role as a combination of the first two regimes via the operation of a newly setup government organization named as Thai Asset Management Corporation or TAMC.

2.1 Debt Restructuring in Thailand

Since the severe economic crisis hit Thailand in 1997, Thai government has applied and implemented many measures to improve its economy. One of the important policies is the resolution of the non-performing loans (NPLs). Since the crisis occurred, NPLs continue to rise further and peaked at 47.1% in 1999. Such an increase of NPLs causes problems to banks and results in inability to accommodate its lending business, which eventually results in a stagnant situation in the economy. To achieve the objective, the Thai government has developed several programs in attempt to address the NPLs problem. The policies taken by the government are to reduce the NPLs through the debt restructuring process. Several programs have been introduced including tax and legal reforms, but one of the most important mechanisms is facilitating corporate debt restructuring.

Thai government has pursued various agendas including the establishment of corporate debt restructuring agency and amendment of the impeded regulations to enhance the possibility of friendly debt restructuring. This will illustrate three major mechanisms

of corporate debt restructuring in Thailand, comprising CDRAC regime, Bankruptcy Act regime, and TAMC regime.

1. CDRAC

Due to the complexity involved in corporate debt restructuring, it is necessary to have efficient authorities, supportive legal and regulatory infrastructure, as well as willingness on the parts of creditors and debtors. Consequently, as a first step, the Bank of Thailand, in incorporation with 5 associations, called the Joint Public-Private Consultative Committee (JPPCC), and set up a Corporate Debt Restructuring Advisory Committee (CDRAC) on June 2, 1998. CDRAC is conducted under 3 corporate debt restructuring frameworks consisting of Inter-Creditor Agreement ("ICA"), Debtor-Creditor Agreement ("DCA"), and a Simplified Debtor-Creditor and Inter-Creditor Agreement (SA)[1], therefore ICA, DCA, and SA enable CDRAC debt resolution to be under a legally bound framework.

The basic principle of CDRAC is to facilitate corporate debt restructuring by assisting both debtors and creditors to settle outside the traditional bankruptcy proceedings. Under the CDRAC process, debt restructuring will generally take approximately 5 months starting from the first creditor's meeting, until the approval of the plan by the creditors. However, such 5 month period has already included 2 extensions, of one month each, with an approval of CDRAC committee.

Table 2.1 presents the progress on debt restructuring of target debtors as of December 31, 2001[2]. Since its commencement, CDRAC has presented a very crucial role in supervising the corporate debt restructuring. As of December 31, 2001, the restructuring of 10,107 cases with credit outstanding of 1,275 billion Baht were completed, accounting for 48.6% of the total credit outstanding. Nevertheless, in the progress cases,

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[1] More details relating to ICA, DCA, and SA are provided in Appendix A

[2] According to its frameworks, CDRAC's target debtors have been selected by the following criteria: 1) debtors who owed at least 1,000 million Baht as credit outstanding, 2) debtors proposed by the 5 founders of CDRAC; and 3) volunteer debtors including both corporates or individuals who owed at least 100 million Baht.

unsuccessful cases, and filing cases to court totaled to 4,743 with credit outstanding of 1,350 billion Baht, which accounted for 51.4% of the total credit outstanding.

Table 2.2 below illustrates the continuous success of debt restructuring under CDRAC's supervision, contributing to the essential reduction in NPLs from its peak to remain at 10.41% in 2001. Although government measures to improve financial position of state-owned banks enabled NPLs to drop significantly, transferring of such NPLs to Asset Management Companies (AMCs) and Thai Asset Management Companies (TAMC) of each bank substantially reduced the level of NPLs, especially in the years 2001 and 2002.

In spite of a large reduction in NPLs, the overall pace of restructuring is slow and the loan problems have not yet been resolved effectively. Pursuant to the CDRAC's 2001 annual report, it reveals many problems incurred during the restructuring course:

- Not being expanded as anticipated through economic conditions makes restructuring negotiation harder and increases Re-entry of NPLs from their inabilities to perform as well as their projection.
- The debtors fall short of new working capital from reluctance in extending credit line from creditors.
- Too tough terms and conditions in the restructuring plan which debtors are less likely to comply with.
- Debtors hope to be transferred to TAMC for more favorable terms, delaying their restructuring process with the CDRAC.

These problems impeded the progress of debt restructuring and lead to increasing in the re-entry NPLs. In most of the debt restructuring cases, the debtors are forced by creditors to enter into bankruptcy court.

Table 2.1

Debt Restructuring Progress of CDRAC Target Debtors As of December 31, 2001

Items	Unit	Large Debtor	Small & Medium Debtors	Total
1. Target debtors under the DCA-ICA or SA restructuring process	Cases	2,859	11,991	14,850
	Million Baht	2,317,276	307,947	2,625,223
1.1 Completed cases *	Cases	1,016	9,091	10,107
	Million Baht	1,145,876	129,437	1,275,313
1.2 In process of debt restructuring	Cases	0	0	0
	Million Baht	0	0	0
1.3 Unsuccessful restructuring cases - Cases filed and to be filed in court	Cases	1,781	2,900	4,681
	Million Baht	1,006,658	178,510	1,185,168
2. Target debtors not under the DCA-ICA or SA restructuring process (Cases filed and to be filed in court/In process of signing SA/Normal Loans)	Cases	62	0	62
	Million Baht	164,742	0	164,742

* Completed cases under DCA-ICA comprise of -:

1. Completed cases (contract has been signed);
2. Agreement on Plan, in process of documentation and signing; and
3. Agreement on Plan, file for reorganization in Bankruptcy Court.

Source : http://www.bot.or.th.

Table 2.2[1]

NPLs [2] Outstanding – Classified by Financial Institution Group

Financial Institutions	1998	1999	2000	2001 December*
Private Banks	1,239,944	885,441	476,360	370,480
(% to total loans)	40.48	30.59	18.02	14.42
State-owned Banks	1,036,654	1,057,276	308,053	71,468
(% to total loans)	62.45	62.84	21.62	5.59
Foreign Banks (full branch)	74,244	61,575	38,176	16,590
(% to total loans)	9.81	9.94	6.62	3.20
Total Commercial Banks	2,350,842	2,004,292	822.589	458,538
(% to total loans)	42.90	38.57	17.70	10.50
Finance Companies [3]	323,691	90,133	41,074	18,867
(% to total loans)	70.16	49.22	22.43	10.30
Grand Total	2,674,533	2,094,425	863,663	477,405
(% to total loans)	45.02	38.93	17.73	10.41

* Preliminary Data.

Note 1) This table is modified from its original source for a simplified purpose.

2) NPLs denotes the loans of past periods, due over 3-month period.

3) Since year 2000, BOT reclassified NPLs under Finance companies by dividing NPLs into 3 categories, consisting of Finance companies, New IBFs, and Credit foncier companies.

Source : http://www.bot.or.th

For the facilitation of corporate debt restructuring in the future, CDRAC continues to facilitate debt restructuring activities for sub-standard debts that do not legally qualify to be transferred to the TAMC. Sub-standard debtors with two or more creditors and at least 20 million baht in credits outstanding will also be considered under the debt restructuring target. CDRAC will only consider companies that are not undergoing in-court business reorganization and have not entered into receivership. Furthermore, DCRAC will a lso facilitate the debt restructuring of multi-creditors, juristic debtors who are New NPLs, Re-entry NPLs and those who directly request facilitation by CDRAC on their own initiatives. The debt restructuring facilitation shall continue to be in accordance with the guidelines as prescribed in the Inter-Creditors Agreement on Restructure Plan Votes and Executive Decision Panel Procedures and the Debtor-Creditor Agreement on Debt Restructuring Process. However, there will be revision of certain schedules in order to further expedite the restructuring process.

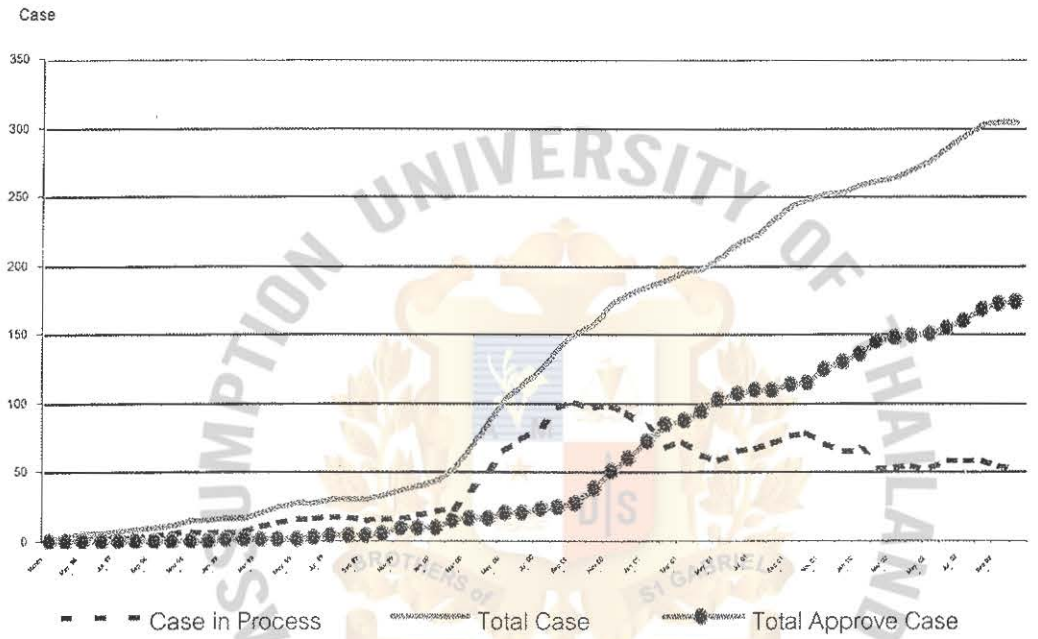
2. Bankruptcy Act

The government has refreshed the court-supervised restructuring process by an amendment of Bankruptcy Act B.E. 2542. Bankruptcy Act amendments nos. 4 and 5 to the Bankruptcy Act B.E. 2542 introduced business reorganization proceedings as an option to liquidation proceedings. The amendments comply with chapter 11 of the USA bankruptcy law by introducing Chapter 3/1 into the existing bankruptcy law. In addition, Thai rehabilitation bankruptcy court was established in June 1999 under the governing of the central bankruptcy court. Pursuant to the execution of memorandum of economic and financial policy with the International Monetary Fund, Thai government has amended the provisions contained in the existing Bankruptcy Law B.E. 2542. The key provisions provided in the amended bankruptcy law are described in Appendix A.

The rehabilitation process takes approximately 3-5 months starting from filing the rehabilitation and asking permission from the court, drafting the rehabilitation plan, voting on the plan by all creditors including the trade creditors, and ending with the court approval. Debt restructuring is the most essential part of the rehabilitation plan, in which firms or their planners have to negotiate their proposed debt restructuring schemes with creditors under the court's regulations. Under the rehabilitation process, firms or debtors

will be granted legal privileges to protect themselves from any other petitions and litigation enforcements, which are the so-called Moratorium or Automatic stays, that commence once the court accepts the rehabilitation filing. The rehabilitation plan is eventually accomplished, at most lasting 7 years including 2 extensions of one year each, such privileges will be lapsed.

Figure 2.1
Summary Statistics of Cases Entering into Business Reorganization Process during April 1998 to September 2002



Source : The raw data is available on http://www.led.go.th

Figure 2.1 illustrates the statistic of restructuring cases under the court's rehabilitation. As of September 2002, after commencement of the constitution, 304 cases have filed their petitions to the court, while 253 petitions were allowed to be restructured under the court process; of which 169 cases were approved by the court, 25 cases were objected by the court, and 59 cases were in the restructuring process.

3. TAMC

Although several measures had been implemented to resolve the NPL's problem, the level at the end of February 2001 was still considered high, amounting to 1.35 trillion

baht or 17.8 percent of the total loans from financial institutions. This is due to the fact that there were new NPLs in the system and re-entries. The government has setup an independent organization with a prompt restructuring process under the Royal Decree's TAMC B.E. 2544. On September 28, 2001, Thai Asset Management Corporation was setout according to the Royal Decree's TAMC section 57 to 82 with a primary objective to manage the transferred NPLs from the financial institutions[1] reaping highest returns on such non-performing assets with supported restructuring tools and legalities.

TAMC was to be established with the status of a state agency and not that of a state enterprise, under special laws in order to expedite the resolution of NPL problems in both the State-owned and private financial institutions, to enable transferred debtors to continue their business operations, thereby enhancing stability in the financial institutional system.

The TAMC has several objectives in managing the impaired assets of the financial institutions and of asset management companies, debt restructuring, and business reorganization by transferring impaired assets of financial institutions and of asset management companies along with other rights over the property being held as collateral for debt repayments with respect to such impaired assets, or by applying any other measures for the purpose of reviving the economy or restoring national stability.

Debt restructuring under TAMC can be segregated into 2 categories, Debt Restructuring Process and Corporate Restructuring Process. Debt Restructuring Process under TAMC proceeds similar to the CDRAC process with the supported superseded regulations, which elevate process to be faster than that of the CDARC. Whereas the Corporate Restructuring Process under TAMC legally works as on-court restructuring under the Bankruptcy Act with a shorter timeframe and if necessary its approved plan can finally be endorsed by the court without any additional required processes and voting from the lenders.

The debt restructuring process, that commencing since the meeting takes place between debtors and TAMC, professional appointments, term sheet preparations, till the process of the board's approval and restructured contract preparation, takes approximately

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[1] Details of financial institutions are setout in Appendix A.

45 days for a single lender and 60 days for multiple lenders, compared to a 5 month period under the CDRAC process. The timeframe for corporate restructuring process commences from the board's approval for corporate restructuring, planner appointments, calling debtor and creditor meetings, plan preparing, and the board's approval for the restructuring plan and send to be endorsed by the court, that may take approximately 90 to 100 days, subject to the amendment requirements, compared to a 4 to 6 month period under rehabilitation process.

The objective of the TAMC is to manage the transferred NPLs from 11 commercial banks, 11 financial institutions, and 7 asset management companies, whose details are listed in Appendix A. As of December 31, 2001, restructuring debt for 169,719 cases totaling 1,326 billion Baht of these financial institutions are qualified with the TAMC conditions and are to be transferred under the management of TAMC. However, as of October, 2002, 1,301 debtor cases or 379,644 million Baht had reached conclusion, of which 530 debtor cases with a total book value of 210,518 million Baht or 55.44 percent were approved for debt restructuring, business restructuring, and rehabilitation in the Central Bankruptcy Court. Other 461 debtor cases with a total book value of 157,959 million Baht or 44 percent were to proceed with foreclosure or final receivership of assets in accordance with Section 74 and Section 58 of the Emergency Decree on the Thai Asset Management Corporation B.E. 2544 (see table 2.3).

As of the end of the third quarter of year 2002, the TAMC approved a total of 1,073 debtor cases with a total book value of 350,061 million baht, reaching a target of 350,000 million baht (see table 2.3). In this regard, the TAMC was quite confident that it would be able to achieve its year-end target of 500,000 million baht. Of all the cases that were completed at the end of September 2002, 305 debtor cases or 32.37 percent of the book value were in the real estate sector and 200 debtor cases or 29.65 percent belonged to manufacturing sector (see table 2.4).

Table 2.3
Debtor Cases that have reached conclusions as of the end of September-October 2002

:Million Baht

Procedures	September			October		
	No. of Cases	Book Value	%	No. of Cases	Book Value	%
1. Debt Restructuring	417	146,130	41.74	461	157,959	41.61
2. Business Restructuring	4	2,026	0.58	4	2,026	0.53
3. Business Rehabilitation in the Bankruptcy Court	57	44,642	12.75	65	50,533	13.31
4. Foreclosure of Collaterals/ Final Receivership of Assets	590	155,167	44.33	766	167,031	44.00
5. Verdict by the Civil Court	5	2,096	0.60	5	2,096	0.55
Total	1,073	350,061	100	1,301	379,644	100

Table 2.4
Debtor cases that have reached conclusion as of the end September-October 2002 classified by Industrial Sectors

:Million Baht

Sector	September			October		
	No. of Cases	Book Value	%of Grand Total	No. of Cases	Book Value	%of Grand Total
Agriculture, Fishing and Forestry	17	1,094	0.31	28	1,860	0.31
Mining and Quarrying	8	572	0.16	9	575	0.16
Manufacturing	200	103,790	29.65	244	116,712	29.65
Construction	79	11,629	3.32	103	12,474	3.32
Wholesale and Retail Trade	182	28,295	8.08	253	32,537	8.08
Imports	32	10,920	3.12	41	11,239	3.12
Exports	17	5,332	1.52	24	5,670	1.52
Banking and other Financial Business	52	39,893	11.40	50	36,679	11.40
Real Estate Business	305	113,328	32.37	327	121,374	32.37
Public Utilities	11	3,409	0.97	12	4,466	0.97
Services	93	27,031	7.72	121	31,184	7.72
Personal Consumption	77	4,768	1.36	89	4,873	1.36
Grand Total	1,073	350,061	100	1,301	379,644	100

Source : http://www.tamc.or.th

Debt Restructuring Scheme In Thailand

The most favorite schemes applied for debt restructuring in Thailand are extension of credit term, grating grace period, and interest concessions, accounting for 39%, 24%, and 17% of total restructured loans in 2001, respectively. Such restructuring schemes are widely acceptable by creditors generally; especially, Thai commercial banks and state-owned banks, since the beginning of debt restructuring in Thailand. Table 2.5 presents the summary of debt restructuring schemes during 1999 to 2001, according to CDRAC's annual report year 2001. On a contrary, principal or interest write-down and asset transfers account totally for 15% of the total restructured loan. It should be considered that debt to equity conversion is not a widely applied scheme, which accounts only for 3% to 4% of total restructured loan.

Table 2.5
The Summary of Debt Restructuring Schemes during 1999 to 2001

Debt Restructuring Schemes	% of Restructured Debt		
	1999	2000	2001
Extension of Credit Term	41	41	39
Grace Period	20	21	24
Interest Rate Concession	22	20	17
Principle/Interest Hair Cut	6	6	9
Assets Transfer	6	5	6
Debt to Equity Conversion	3	4	3
Others	2	3	2
Total	100	100	100

Source : The Bank of Thailand, CDRAC's annual report, 2001.

In conclusion, most of debt restructuring schemes in Thailand are done by rescheduling of the loan repayments, with lesser allowance for exchange offers, which can be noticed from the much lower percentage of asset transfers and debt to equity conversion schemes to the total restructured debt than those of extension of credit terms and grace period granting. Additionally, due to the conflict of interest and risks taken from the appliance of debt to equity conversion scheme, principle and accrued interest hair cut schemes are more popular but at low percentages, approximately between 6% to 9% of the total restructured debts. Hence, this traditional practice might impede the possibility of debt to equity conversion for debt restructuring in Thailand.

CHAPTER 3

REVIEW OF RELATED LITERATURE AND STUDIES

This chapter will provide the perspectives of previous studies related to this study of debt to equity conversion as well as summarize the factors determining the motivations for debt to equity conversion in corporate debt restructuring. To complete the study, a review of legalities and regulations relating to the implementation of debt to equity conversion in Thailand are also prepared. Lastly, some concerns of debt to equity conversion in the area of corporate finance are figured out to illustrate its influences.

3.1 Determinants of Debt to Equity Conversion

From the related literatures review described in the next part, the determinants for debt to equity conversion under debt restructuring can be summarized into three groups, "the firm's growth opportunity", "potential insolvency problems", and "the firm's ownership and management" or "the firm's corporate governance".

1) Growth Opportunity

Debt to equity conversion sounds interesting, when banks found growth opportunities for the restructuring firms. In taking equity for exchange of debt concession, banks have to trade off between servicing interest and principal in the future, even after the extended period with the potential return of capital gains. The findings of empirical studies of James (1995) and Fan and Sundaresan (2000) supported that banks would take an equity swap with their debt with the high growth opportunity firms. Furthermore, should banks view any growth opportunity in the firm, equity conversion would be taken into consideration rather than cut loss with principals and interest written off today.

Nevertheless, some previous researches point out other determinants, which might deteriorate the essential growth opportunity determinants. According to James (1995)'s wealth transfer hypothesis, the value of high growth opportunity firms might deteriorate, if firms are in a distressed situation. During the economic crisis, such firms might have had

to take risky and negative NPV projects to shrink the high fixed operating costs, resulting in worsened performance, negative growth, and even deterioration of the firm's values. Moreover, incentives from accepting equities are limited by the presence of public debt, since the firm's wealth will be transferred to the public debt-holders when banks apply the debt to equity conversion scheme, if such public debts have not been restructured or treated at the better restructuring schemes. Therefore, the presence of public debts and their restructuring terms and conditions would lessen the importance of the growth opportunity motivation.

2) Insolvency Problems

For the aspect of insolvency problems, as a determinant of debt to equity conversion, banks, which take debt to equity conversion for debt restructuring, consider this scheme as debt written off for such companies. For the poorly performing company, reflecting large portions of unserviceable debts, banks might take their equity to expect the future capital gains on the stock holdings, even though they have to realize loss on investment in that kind of stocks. Consequently, the probability of insolvency of the firm also influences the motivations of debt to equity conversion. The empirical studies of Gilson, John, and Lang (1990) and James (1995) support this concept provided lenders would realize debt concessions for very poor performing firms with substantially low serviceable debt portions. Debt to equity conversion becomes an interesting restructuring scheme, since it provides perhaps future return in a form of the capital gains of stocks for the banks. Furthermore, the previous researches of Brown, James and Mooradian (1993) and James (1995) directly support being determinants of insolvency problems to debt to equity conversion by the lenders. They found that the firms in which banks take equity have significantly poor operating performance in the year prior to the restructuring. Additionally, the study of Narongtanupon (2000) indirectly supports this factor that debt to equity conversion would be considered as the last restructuring scheme after the other non-equity restructuring schemes that have been taken into account. This can be implied as the insolvency factor, as most of the non-equity restructuring schemes are based on true performance of the company, and the banks need to consider the debt to equity conversion when the poorly performing firms cannot service their debts through other restructuring schemes.

3) Corporate Governance

Many previous studies discuss corporate governance issues involving the lenders through debt to equity conversions. For example, Gilson (1990) suggests that the controlling power and ability of management are transferred from those existing owners or shareholders to the creditors (in most of the cases they are banks), the new shareholders, after the debt restructuring of the distressed firms. The rational behind taking debt to equity conversion in those restructuring firms is to control and monitor the firms' activities and policies to improve their performance, Narongtanupon (2000). Nevertheless, taking over the corporate governance of the restructuring firms by banks can initiate a conflict of interest from being simultaneously creditors and shareholders of the firms. On the contrary, the firms with high ownership concentration like single family-owned business are reluctant to offer equity conversion to their creditors, as they do not want to dilute their managerial control to the new large shareholders. Wiwattanakantang (1999) indicates that to protect the controlling power and maintain the largest shareholders position, the owner-manger prefers raising funds with high leverage strategies rather than any equity instruments.

3.2 Review of Related Literature and Studies

Puapongkorn (2000) suggests one of the most important factors determining the success of debt restructuring, the so called sustainable restructuring, is an appropriate debt restructuring scheme. He, with the empirical study of distressed companies in Thailand, argues that sustainable restructuring applies the restructuring scheme of reduction in principal such as principal haircut and debt to equity conversion. He claims that such sustainable restructuring schemes boosts up the debtor's real serviceability, accordingly with the logical evidence of lower interest burdens to the firms from the allowed principal concession of creditors. However, pursuant to the annual report of the Bank of Thailand year 2001, only 9% and 3% of total restructured debt applied principal reduction and debt to equity conversion, respectively, while 80% of such restructured debt applied the schemes of debt rescheduling and concession for the interest burden. Puapongkorn (2000) also indicates that the popular restructuring schemes of rescheduling and interest

concession are non-sustainable restructuring without any concern to the viability of the firm in the future, but concerned only to the current serviceability level of the debtors. Likewise, such restructuring schemes also do not relate to economic indicators such as interest rates and economic growth, which fluctuate and are unpredictable and affect the debtor's serviceability and eventually long run viability. This means the debtor may not be able to service the interest and principal, when the interest rate goes up or the economy turns down, and becomes a strategic NPL or a re-entry NPL.

Fan and Sundaresan (2000) provide a theoretical framework for debt renegotiation between the valid claimants of debt-holders and equity-holders on the process of debt restructuring of the firms. It is interesting that Fan and Sundaresan (2000) illustrate their framework with a Dynamic Nash Equilibrium solution to solve the problem of bargaining power between a distressed firm and its creditors or claimants of debt-holders and equity-holders.

Fan and Sundaresan (2000) present the bargaining game, by which the claimants of both debt-holders and equity-holders bargain over the value of the firm's assets (i.e. proceed of firm's assets from liquidation). Normally, the assets liquidation value of the restructuring firms is insufficient to cover their debt. As a result, firms eventually decide to offer their equity in exchange of the bank's claims. Based on the conclusion of Fan and Sundaresan's model, the bargaining power of equity-holders to contest debt to equity conversion positively depends on the liquidation value of the firm's assets, which they define as a value returned to outsiders, who have better priority than both claimants, following the absolute priority principle. Therefore, the higher the liquidation values are, the more benefits equity-holders can obtain through debt renegotiation, and the earlier the trigger point of debt to equity conversion is. Furthermore, they also provide a comparative static to illustrate that the payout ratio, volatility of firm's return as reflected in the level of retained earning to generate future operating cash flow and assets, and tax benefit are negatively correlated to the trigger point of debt to equity conversion from the tax shield of high assets' provision expenses.

Narongtanupon (2000) developed his study based on James (1995) and explored the new area of corporate governance. He provides insights on bank's incentives to take equity in distressed firms. He argues that the primary rational behind taking equity stakes

of the distressed firms of banks is for control of power over the firms, which automatically authorized them to monitor over the firm's investment and operating policies and activities. Based on a control-based hypothesis, he found that banks in general take equity when firms lack effective governance. An acquisition of firms' stocks, including debt to equity conversion under the debt restructuring, transform the bank status from creditors to be new large shareholders with more authority from shareholding right unavailable to creditors to exert the firm's policies. He also found that after banks gain the control over the firms, they would change the top management composition of the firm to enable themselves to influence the firm's operations. Nevertheless, with regard to debt restructuring, he found that banks attempt and prefer several non-equity strategies, such as maturity extensions or contract modifications, before the debt to equity conversion schemes. He claimed that this is because banks are constrained by various factors such as legal constraints, conflict of interest, and aversion of principal and interest being written off. Nevertheless, this also illustrates that banks considered in the serviceable level they can get, rather than the viability of the firm in the future or the conclusive resolution for NPL problems.

Wiwattanakantang (1999) studied the determinants of non-financial listed firms' capital structure in Thailand. He found that the ownership structure influence the firm's capital structure. A firm with highly centralized ownership like a single family owned structure tends to be highly leveraged in its capital structure. Likewise to the many other countries in Asia, owner-manager[1], who usually is the founder of the firm and retains the managerial ownership in the firm, takes an absolute control of power over the firm's operations. Compliance to this fact, what he found is that the level of management ownership centralization and the level of the firm's leverage as measured by the debt ratio are related positively. Additionally, responding to the evidences, he found the owner-managers prefer to employ high leverage for the capital requirement of the firm to protect

[1] Usually, owner-manager refers to the large shareholders, who own important managerial positions in the firm. They usually are the founder of firms and play important roles in the firms. See, Wiwattanakantang (1999).

their control power from the new capital injectors or investors and also to reduce agency costs of equity. On the other hand, the firms with large number of shareholders tend to acquire low debt structure, since these large shareholders have sufficient incentives to monitor the management performance to protect their benefits for themselves. Finally, he found that, in making financial decisions for these firms, tax effects, the signaling effects, and the agency costs also play an important role and need to be considered.

James (1995), based on his regression model to investigate the conditions why banks take equity positions in distressed firms, found that incentives for banks to take equity in distressed firms depend on whether the bank's claim is impaired and whether public debts restructure their debts. This is claimed by a wealth transfer hypothesis. He indicates that without public debt restructuring, banks will be concern that the benefits from taking equity to assist firms in distressed situation will be transferred to the public debts. In this case, public debts will take benefits from a bank's contribution, which is costly for banks to improve their claims. This means firms will have lesser debt burden and able to repay public debt under the former terms and conditions without any concessions from restructuring. Therefore, this implies that the potential wealth being transferred to public debt holders is a considerable factor limiting the bank's decision on debt for equity conversion. Finally, James concludes that the role of a bank on debt restructuring depends on the composition of other debt claims; including the ways those claims were treated. Especially, firms with high public debt outstanding appear to lose flexibility in reconstructing and restructuring with equity offers to the bank lenders.

Despite the low percentage of debt to equity conversion appliance experienced in Thailand, referring to James' empirical work in examining a sample of 102 US firms, engaged in debt restructuring during 1981 to 1990, he found 31% of the sample, the distressed firms, were taken to equity position by their creditors. Specifically, based on the wealth transfer hypothesis, James indicates that the probability that banks will take equity is negatively related to the proportion of the firm's public debt and positively related to the firm's growth opportunity. However, his finding of positive relationship between opportunity growth of the firm and the probability of bank to apply debt to equity conversion is not in line with the evidence of those restructuring firms, since they face

distressed situations and experience cash flow constraints with poor performance for their operation, reflecting in expected low opportunity for growth in the near future.

Brown, James and Mooradian (1993) present the model that illustrates how the composition of exchange offers, made by distressed firms, convey information on the value of the firm's assets to outsiders, and if its good or a poor prospective towards the firm's value. BJM found that firms with unfavorable information would offer equity to convince banks that firm's prospects are very poor. They also indicated exchange offers (equity offering) involving public debt, offering junior claims, resulting in downward revaluation of firms. In contrast, offering equity to well-informed private lenders such as bank lenders conveys favorable private information to outsiders and results in upward revaluation. The conclusion is supported by their empirical study. Specifically, BJM provided evidence that when institutional investors, banks and financial institutions and creditors, accept only equity with warrants in exchange for their claims or loans, the long term returns are higher than other exchanges. In conclusion with regards to the debt to equity conversion under debt restructuring, their findings confirmed that the restructuring firms experienced positive average of abnormal returns from offering equity to private lenders and proposing senior debt to public debt-holders. Inversely, those firms will experience a significant negative average of abnormal returns, when private lenders are offered senior debt and public bondholders are offered equity. These conclusions comply with the fact that the private lenders as banks and financial institutions have powers and are qualified to monitor the distressed firms resulting in better performance, but public debt or bond holders.

Gilson, John, and Lang (1990), hereinafter so called GJL, provides an empirical work investigating the incentives in restructuring debt through private renegotiation and business reorganization based on Chapter 11 of USA bankruptcy law. The study found that to restructure debt privately, the distressed firms are more likely have more intangible assets, owe more of their debt to bank lenders, and participate with fewer lenders. Additionally, from abnormal stock return analysis, GJL found that shareholders of distressed firms generally gain abnormal return under private renegotiation than the reorganization under Chapter 11.

In connection with the debt to equity conversion, 74% out of 112 observations of GJL applied the debt to equity conversion scheme for their successful restructuring of debts. This indicates that in most of the cases, distribution of equity stake to creditors, which means debt to equity conversion, is one of the preferred schemes. However, from the bank's legal constraint in holding share of other firms, regulated by the Bank Holding Company Act and also other relevant regulations, GJL indicates that bank lenders receive a lower proportion of equity than other creditors. Unlike those found in Thailand, due to the fact that bank lenders normally have the highest proportion of the total debt outstanding with legal restriction in holding equity of other firms, only 3% to 4% of all restructuring cases were found to use debt to equity offerings as presented in Table 2.4 in Chapter 2. Additionally, GJL's conclusion seem different from Gilson (1990), who found that among all creditors, on average, after the debt restructuring, banks, who normally hold the highest proportion of debt to the distressed firms, become the largest equity-holders of the restructured firms. Nevertheless, GJL claims that high probability of subsequent bankruptcy of the firm from banks' assessment supports the banks' preference in getting relatively less equity than other creditors.

Gilson (1990) studies the transitions of corporate ownership and the power controls of distressed firms through the restructuring. His investigation found evidence confirming the transferring of the control of power over new ownership from incumbent management and the existing board of directors towards bank and other creditors. Over the period of debt restructuring, Gilson also found that the percentage of shares held by owner-managers and existing shareholders dropped, while the percentage of shares held by the firm's creditors rose sharply. Additionally, some evidences signify that the new shareholders from debt to equity conversion, lenders or creditors of the firm, would send their representatives to sit on a board or to be the CEO directly probably to improve the distressed situation, as they believed that the poor performance of its management was the major cause of the firm's distress. This implies the controlling power is also transferred through the debt to equity conversion under debt restructuring. In addition, he also found that through both positive and negative covenants in the restructured loan agreement, the creditors, who take debt to equity conversion, gain additional control over the investment and financing policies of the firm. In conclusion, Gilson found that the consequence of

financial distress may causes significant changes in the ownership structure of a firm and also the allocation of rights to manage corporate resources from the firms to the creditors.

Table 3.1 : The Summary of Review of Related Literatures

Literature	Variable	Data	Method	Conclusion
Puapongkorn (2000)	- Total Asset Turnover - Gross profit Margin - Fixed asset to total assets ratio - Inventory to total assets ratio - Debt to equity conversion	Annual Data	Logit Regression Model	Debt haircut and equity conversion are sustainable restructuring schemes, concerning viability of the debtors in the long run.
Fan and Sundaresan (2000)	- Debt to equity conversion - Liquidation Value - Dividend payout ratio - Leverage ratio - Cash flow-based bond covenant - Debt-holders' claimants - Equity-holders' claimants	Annual Data	Dynamic Nash Equilibrium	Liquidation value has positive relationship with bargaining power of equity-holders or debt to equity conversion. Higher liquidation value, earlier the trigger point of debt to equity conversion.

Literature	Variable	Data	Method	Conclusion
Narontanupon (2000)	- Debt to equity conversion - Ownership concentration - Managerial control power through the change in management - Debt ratio	Annual Data	Regression Model	Banks generally take equity conversion to their debts when firms lack the efficient governance.
Wiwattanakantang (1999)	- Ownership concentration - Managerial ownership - Agency cost effects through market to book ratio - Debt ratio	Annual Data	Regression Model	Level of management ownership centralization and the level of the firm's leverage are related positively.

Literature	Variable	Data	Method	Conclusion
James (1995)	- Debt to equity conversion - Bank debt impaired or not via public debt overhang and extension and modification of debts - Percentage of management shareholding - Debt ratio - Market to book assets - Public debt portion	Annual Data	Regression Model	Debt to equity conversion is negatively related to the portion of public debt but positively related to the opportunity growth of company.

Literature	Variable	Data	Method	Conclusion
Brown, James, and Mooradian (1993)	- Debt to equity conversion - Ratio of book value of debt to market value of equity - Financial institutions' claims (Senior claim offer) - Non-financial institutions' claims - A leverage associated to transaction	Annual Data and daily data for stock price determined for two days standardized prediction error around the announced restructuring	Regression Model	Debt to equity conversion offered to financial institutions' claims conveys the good signal to the outsiders with support empirical study of high return for stockholders of such company.

Literature	Variable	Data	Method	Conclusion
Gilson, John, and Lang (1990)	- Choice between bankruptcy and private restructuring - Debt to equity conversion - Market value to replacement cost ratio - Bank debt ratio - No. of bank debt contract outstanding	Annual Data	Logit Regression Analysis	Shareholders generally gain abnormal return under private debt restructuring than the reorganization under Chapter 11.
Gilson (1990)	- Shareholding percentage - Percentage shareholding of management - Debt to equity conversion - Management of financial institution from the transaction	Annual Data	Regression Model	Controlling power is also transferred through the debt to equity conversion under debt restructuring.

3.3 The Definition of Independent Variables

From the rarely precedent theoretical framework in connecting to the motivations of debt to equity conversion, particularly of those in Thailand, we expect a relationship between the debt to equity conversion and the independent variables from the review of related literature, described in the previous discussion. The following are the expected explanatory independent variables for the motivations of debt to equity conversions.

Growth Opportunities :

Market-to-Book Assets

Market-to-book assets ratio represents the growth opportunities of a company. According to the empirical study of James (1995), there is positive relationship between this ratio and the probability of banks to take equity in exchange of their claims.

$$\text{Market-to-book assets} = \frac{\text{(book value of assets - book value of equity + market value of equity)}}{\text{book value of assets.}}$$

Insolvency Problems :

Coverage Ratio

Coverage ratio measures not only the firm's ability to service its obligations, but also reflects the past performance of such firms. Firms, with high coverage ratio, have high debt serviceability and good performance. Firms, with poor performance, tend to offer debt to equity conversion to their creditors to reduce their debt burden, as suggested by Gilson, John, and Lang (1990) and James (1995). In addition, Brown, James and Mooradian (1993) and James (1995) found that the firms in which banks take equity have significantly poorer operating performance in the year prior to the restructuring. Consequently, a negative relationship is expected between the coverage ratio and debt to equity conversion. The coverage ratio is computed by dividing earning before interest and tax (EBIT) to interest expenses.

Debt Ratio

Debt ratio represents the relationship between debts and assets of a firm, and a high debt ratio implies a high chance of insolvency for a firm. Based on Brown, James and Mooradian (1993), a high leverage firm, whose prospects are poor, will convince banks, to take a firm' s equity in exchange for debt concessions. This is consistent with James (1995), since converting of debt to equity in exchange for debt concessions does not impair the bank' s claims. The positive correlation between debt ratio and the probability in taking debt to equity conversion is therefore expected in this study. Debt ratio is computed by dividing the total book value of debt by the total book value assets.

Corporate Governance :

Percentage shareholding of Owner-Manager

As found by Wiwattanakantang (1999), most of the Thai firms were developed from family businesses. The owner-managers, to protect their controlling power over their firms, reject their managerial ownership transfer to the creditors through debt to equity conversion. Therefore, we expect a negative relationship between percentage shareholding of owner-managers and the motivation for debt to equity conversions. Percentage shareholding of owner-managers are represented by the shares owned by the management team including, their families and close relatives as presented in the shareholder statement. In addition, percentage shareholding of owner-managers include the shares owned by related companies and its affiliates.

Percentage Shareholding of Financial Institution

According to the inference that there should be some corporate relationships between Thai firms and their creditors as Keiretsu firms, the positive relationship between percentage shareholding of financial institutions and the motivations for debt-equity swap is expected in this study. The shares owned by banks, and finance companies as firm's creditors represent percentage shareholding of financial institutions. In addition, percentage shareholding of a financial institution also includes the security companies, insurance companies and mutual funds, that are affiliates of those banks and finance companies.

However, from the review of related literature, some variables have been left out, due to their limitations and being out of scope of this study. The following are the dispensed variables from the review of related literature with their rationales of being out of scope, not directly related to the study, and limited under the Thai current situation.

The total asset turnover is disregarded under this study, as it represents the ability to generate sales from the assets of the company, which indirectly affects to the company' s performance. Likewise, gross profit margin measures the company' s performance in terms of cost controlling but the ability to repay the obligation incurred for the company. Measuring the company' s performance is directly related to the ability to repay obligation burden of the company in this study is determined through the interest coverage ratio.

Liquidation value, which determines the value of a company's assets in case of liquidation, is out of the scope of this study, as this study studies exclusively of the success restructuring companies to find the determinants of debt to equity conversion restructuring schemes. Likewise, managerially controlled power through change in management is not in the scope of this study, as this study is not related to the consequences of debt restructuring, but the determinants of the debt to equity conversion restructuring scheme as mentioned above.

The dividend payout ratio is also out of scope of this study. Although it indirectly affects growth opportunities of the company in generating future free cash flow through reinvesting funds available, it is difficult to be determined, as few restructuring companies pay dividend for their shareholders. The company' s market price precisely assesses its growth opportunities and is also the key factor of the selected variable of market to book assets.

As mentioned in the limitations of the study, this study considers exclusively, the companies with no outstanding public debts, which will vary as per the market value of the firms' debts from time to time and directly related to the growth opportunities of the company. Additionally, companies with public debt outstanding are rarely found in

Thailand. Consequently, the public debt portion to the total debts of the company is not considered as a determinant of this study.

3.4 Review of Legal and Regulations Relating to Debt to Equity Conversion in Thailand

For better understanding of how debt to equity conversion is performed and to knowledge practical in the real situations, related legal and regulations are described and analyzed in this part. Since the appliance of debt to equity conversion is subject to the banks' concern, and banks are involved in many regulations and restrictions as being public parties unlike the private firms, that are not bound with many regulations; this review emphasizes on regulations and restrictions on the bank's side. Besides the review of related legalities and regulations, the accounting procedures in connection with the debt to equity conversion under debt restructuring are also prepared.

1) Related Legal and Regulations[1]

Shareholding Limitation

Commercial Banking Act B.E. 2505, section 12(5), Thai commercial banks are prohibited to hold common stocks in other public or limited companies to the tune of more than 10 percent of the companies' shared capital, and mutually 20 percent of the capital fund of the banks, unless conditionally authorized by the Bank of Thailand. This type of regulation is also applied to finance companies and credit fanciers with the maximum holding percentage of not more than 60 and 20 percent of their capital funds, respectively. This limitation primarily obstructs Thai commercial banks to take the debt to equity conversion offers under debt restructuring.

To elevate the NPLs resolution, Thai government with a cooperation of the Bank of Thailand has temporarily waived this limitation for the commercial banks and financial

[1] For all legal reference, we provide the summary of the referred sections in Appendix B

institutions by issuing amendments to the memorandum and article of association[1]. This allows banks and financial institutions to hold shares of limited and public companies beyond such limitations as prescribed above, only for loans restructured under the processes of Bank of Thailand and on-court business rehabilitation of bankruptcy court until the end of 2004.

Debt to Equity Conversion Implementing

Pursuant to Section 54 of Chapter 5 under Public Limited Companies Act B.E. 2535, in case of an increase in capital, it is prohibited to offset any debts for the payment of company's shares. Therefore, offering of the company's shares in exchange for lenders' claims, which is prohibited in the legal sense. In addition, according to Section 139 of Chapter 10 under Public Limited Companies Act B.E. 2535 as well, it sets out the official timeframe for the procedure of capital reduction, which practically takes approximately 3-5 months to complete the process.

These limitations have been superseded with the amended bankruptcy act B.E 2483, allowing the plan incorporated with debt to equity conversion scheme to restructure the debt prepared by planner and approved by the court to be validly executed by the plan administrator. Likewise, the restructuring debt under the process of Thai Asset Management Corporation (TAMC) will also immediately implement debt to equity conversion, neglecting the above regulations. However, such privileges are not provided for the debt restructuring under CDRAC. In practice, this limitation can be avoided technically according to the guidance from legal advisors, varying case by case.

Special Resolution for Capital Increment and Reduction[2]

Since any changes in a firm's capital would affect their shareholders, the Public Limited Company Act requires a special resolution of the shareholder meeting to pass the

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[1] See, Allowance for purchase or hold shares in other companies exceeding the limit level, dated April 4, 2000, available on http://www.bot.or.th.

[2] According to the Public Limited Companies Act B.E.2535, a special resolution requires the resolution of shareholder meeting by at least three quarters of the total number of votes of the shareholders attending the meeting and having the right to vote.

relevant procedures, according to section 136(2) and section 139. Such a requirement might impede debt to equity conversion in case that the restructuring plan related to debt-equity swap cannot be passed by the special resolution.

Similarly, should the increase and decrease of shared capital have been stipulated in plan for debt restructuring under rehabilitation process under bankruptcy court and process under TAMC, such capital increment and reduction can be implemented upon the approval of court and TAMC's board; while debt restructuring under CDRAC's process still needs to follow those restrictions with technically avoidance to the opened way of related laws without any direct superseded regulations.

2) Accounting for Debt Restructuring

Consistent with the accounting standard no. 44 and 45, the equity taken by banks through the conversion of debt is recorded as the investment of the banks, which require a set of full provisions in case of any investment loss realized. Banks need to put more concern in debt to equity conversion, as this reflects directly to the banks' earning report and equity itself.

According to the regulations for debt restructuring[1] set by the Bank of Thailand, the commercial banks and financial institutions have to realize the fair value of the equity taken for the book value of converted loan spontaneously to the occurrence of the transaction. This means financial institutions have to record losses equivalent to the difference between the fair value of equity taken and the book value of the converted loan. In most of the circumstances, financial institutions need to set a write off full or almost of such loan's book value, as most of the restructured firms experienced negative net asset or their shares are in pending list with a nearly zero market price in the list of Stock Exchange of Thailand (SET). This finally reflects its increased loss in profit and loss statement, deteriorated equity in balance sheet, and seriously requires additional reserve

[1] See, the regulations for debt restructuring of financial institution, dated June 1, 1999, the bank of Thailand, available on http://www.bot.or.th.

suffering them in granting loan as their normal business. This also makes banks reluctant in converting their loan with equity stakes of the debtors.

On the debtor side, it beneficially enhances the firms' earning report and balance sheet. Debt to equity conversion strengthen the firm's financial situation, increased shares prepared for debt to equity conversion or the switching of converted debt to equity enhance the net worth the firms' balance sheet, and any debt concession normally incurred for debt to equity conversion improves the earning report through gains from restructuring finally boost up the balance sheet as well. Lastly, it is helpful for firms to attract strategic partners or investors; especially, stipulated as one of the restructuring schemes in the plan.

3.5 Concerns on Corporate Finance Area towards Debt to Equity Conversion

From the review of related literature, 3 main areas related to corporate finance, conflict of interest, corporate governance, and information signaling, are beneficially analyzed to better understanding the studied determinants and help to explain the outcomes of this research.

Conflict of Interest, as mentioned earlier, lenders, who take equity in converting with their loans, will simultaneously take 2 roles, creditors and major shareholders of the firms with the authority to exert on the firms' operating and investing policies. This is criticized under corporate governance. Banks will be faced with the conflict of interest between reinvested profits for the future projects, finally reflecting in the improving stock price benefited other shareholders also; or consider it as the excess of cash flow to repay their debts as a specific restructuring scheme to boost up their own recovery rate. In addition, some evidences indicate that banks as debtors, being shareholder of the firm, can take advantages of other creditors, while banks as creditors, who possess information of firm's competitors, can take advantages from firm's competitors to recover their loss at the cost of the firm's competitors.

Corporate Governance, as mentioned above, the managerial control will automatically be brought to the lenders, as being major shareholders after conversion of debt to equity. From holding shares of more than 5% of the total capital, banks become major shareholders with the authority to assert on the firm's operations and also influence

the firm's management. As most of Thai firms are singly owned like single family ownership (Wiwattanakatan (1999)), the owner-manager avoids equity conversion to protect the dilution of his ownership and controlling power. Both conflict of interest and transfer of corporate governance are major concerns in considering debt to equity conversions.

Information Signaling, according to the pecking order theory, firm, that issues stocks to raise funds rather than debt, usually experiences a drop in its stock price from conveying bad signals to the outsiders. Likewise, firms, who increases its capital to satisfy debt to equity conversion, may face with a drop in the stock prices. Solomon (1963) found that the firms issuing equity by retiring debt would experience the highest negative return, while the evidences indicate issuing straight debt always results in the positive return, especially issuing debt to retire common stock. This point of view should be taken into consideration in the area of corporate finance in offering equity to convert with its debt.

CHAPTER 4

RESEARCH FRAMEWORKS

4.1 Theoretical Framework

According to the statement of problem, the determinants of the debt to equity conversion for corporate debt restructuring in Thailand, in conjunction with the related empirical studies from the previous chapter, three major variables are considered. These are growth opportunities, insolvency problems, and corporate governance of the firm.

Growth opportunities: James (1995) and Fan and Sundaresan (2000) found that banks would take debt to equity conversion of the high growth opportunity firms. Banks and creditors, after taking equity of the firms, that will have the same view as the investors to produce positive returns or the potential of capital gains in the invested shares. Therefore, they tend to consider debt to equity conversion as a debt restructuring scheme for the high expectancy growth opportunity firms.

Insolvency Problems: Pursuant to the findings of Gilson, John, and Lang (1990) and James (1995), poorly performing companies, with significant signs of insolvency problems, are likely to have equity conversion with debt taken by their creditors rather than being considered for debt forgiveness. In addition, Narongtanupon (2000) found that banks would take an equity conversion for the remaining unserviceable portion of the poor performance companies as the last choice restructuring scheme. This statement supports the assumption that insolvent firms tend to prefer debt to equity conversion.

Corporate governance: Banks will simultaneously take two roles of shareholders and creditors of the company enabling themselves power to control the company, is considered to be one of the set motivations of debt to equity conversion. This is supported by the previous study of Narongtanupon (2000), who found that the reason behind taking debt to equity conversion of the restructuring firms is to control and monitor the firms' activities and improve their performance. Gilson (1990) also found that after debt restructuring, the power in controlling the firms would be transferred to the new shareholders after debt to equity conversion.

4.2 Conceptual Framework

Figure 4.1 Conceptual Framework.

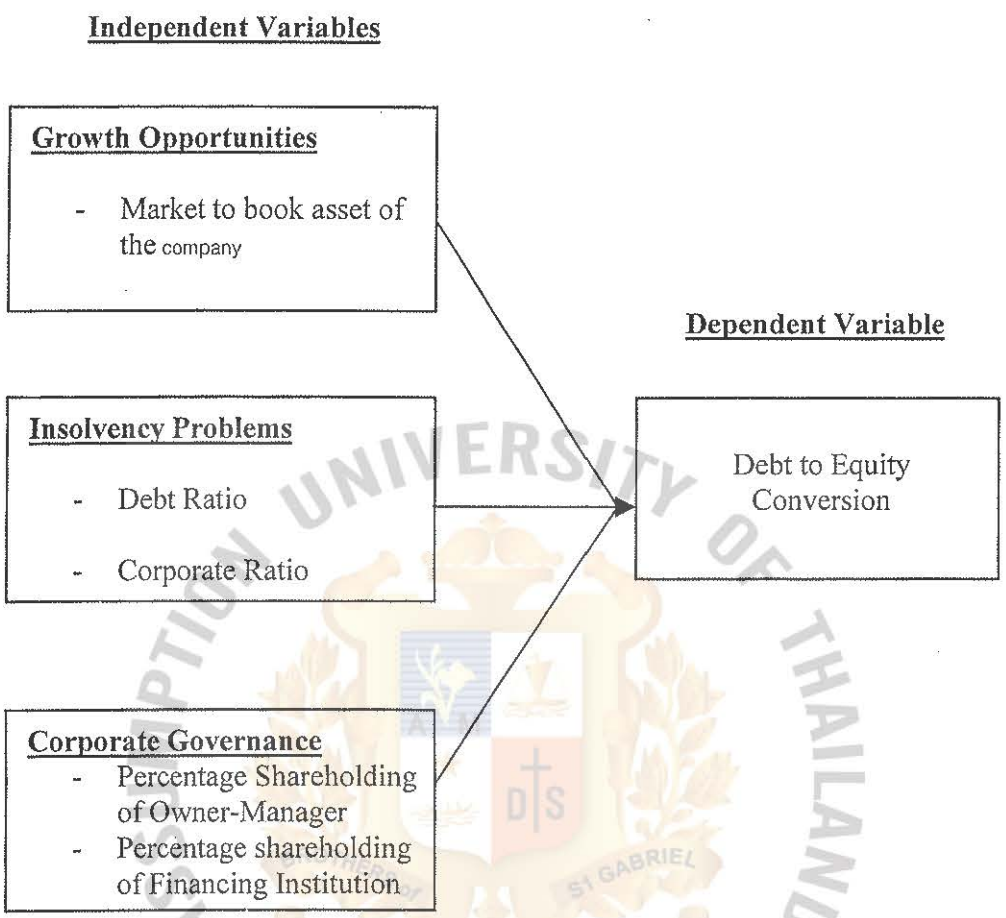


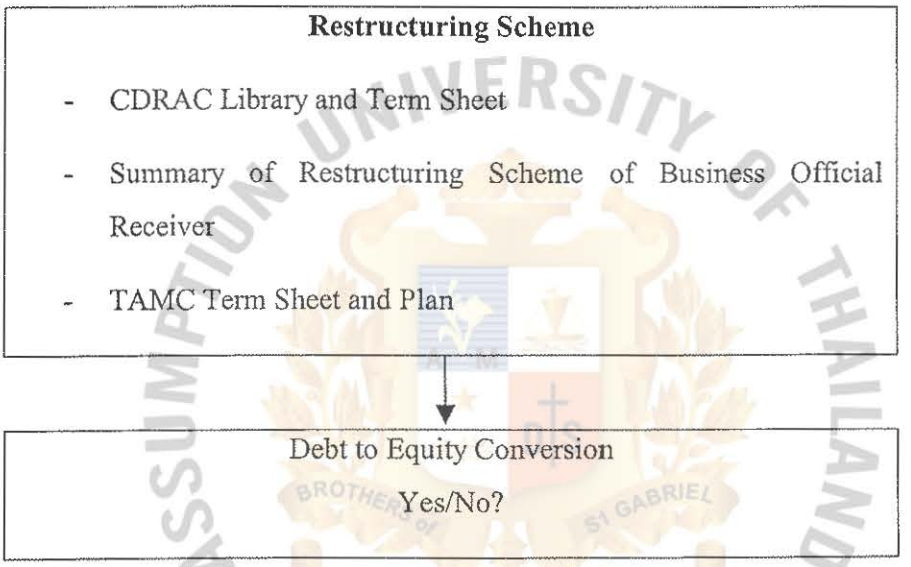
Figure 4.1 illustrates the conceptual framework of the study of the determinants of debt to equity conversion for corporate debt restructuring in Thailand. The three major variables; growth opportunities, insolvency problems, and corporate governance, are studied. Growth opportunities are expected to be positively related to the decision making for the study and are represented by the market to book assets of the company. For insolvency problems, as discussed in chapter 3, debt ratio and coverage ratio usually reflect the levels of indebtedness, the obligation serviceability of the company, and its insolvency, and measures whether they are the determinants of the lenders' decision making in converting their debts with the firms' equity. Lastly, corporate governance, which directly concerns the ownership issues for both debtor and creditor sides, is measured through the percentages of shareholding of the firm's management and the

finance creditors. In conclusion, growth opportunities, insolvency problems, and corporate governance are key variables for this study through the measurement of their sub variables whether they are the determinants of the debt to equity conversion of the corporate debt restructuring in Thailand.

4.3 Operational Framework

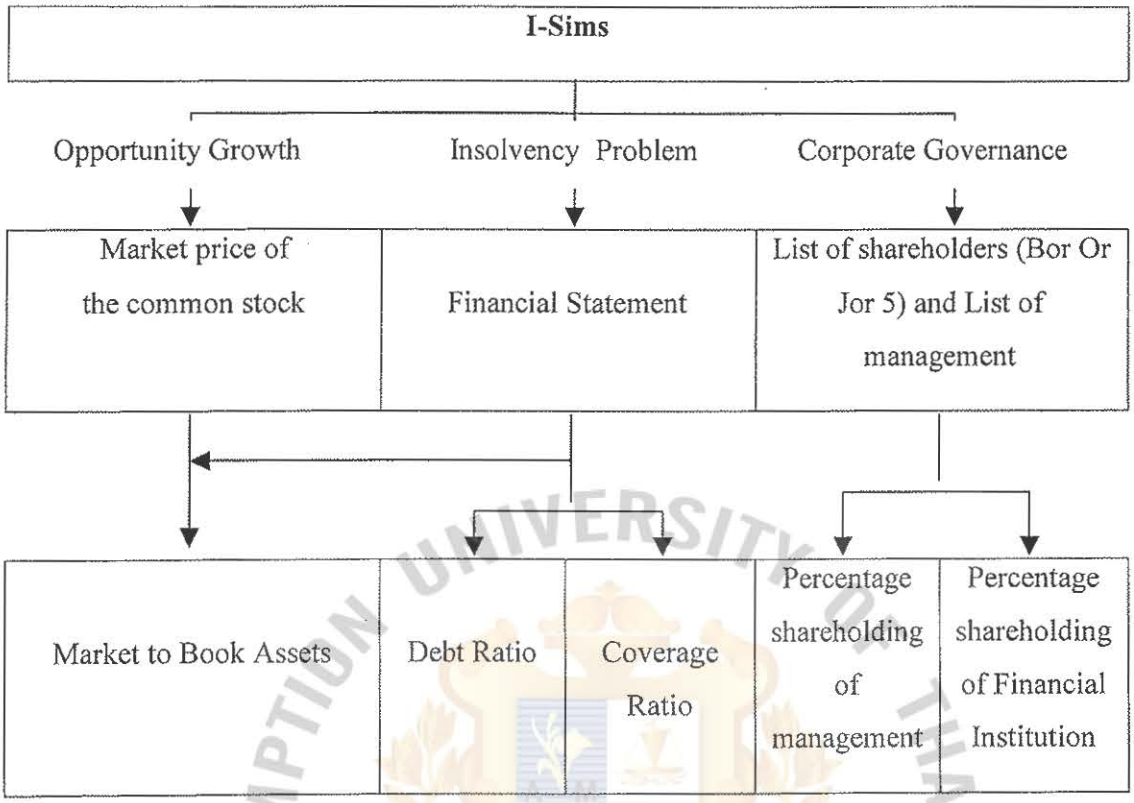
The reliability and accessibility of the information exploited for this study are core factors for the study of secondary information and are explored in this session.

Dependent Variable



Information from the CDRAC library and term sheet, the summary of the restructuring scheme of business official receiver, and from the TAMC term sheet and plan is investigated for the debt to equity conversion of the sample. The applied restructuring schemes of the sample are investigated to determine whether debt to equity conversion has taken place for the further study of its motivations.

Independent Variable



Information from I-Sims, including market price, financial statements, list of shareholders and list of management, are investigated for independent variables of market to book assets, debt ratio, coverage ratio, percentage shareholding of management, and percentage shareholding of financial institutions. However, in the absence of any information, the annual report, trading information for closing price of stock, and information of management from security companies would effectively be substitutes.

Table 4.1 : Sources of Information of the Study Variable.	
Variable	**Source of information**
Dependent variable	
Debt to equity conversion	Pursuant to the restructuring plan, term sheet, or master restructuring agreement of the selected sample, debt to equity conversion will be studied. Should any debt is transferred or swapped with the equity or share of the restructured company; the debt to equity conversion scheme has been selected.
Independent variable	
Market to book assets	Two kinds of information are required for this variable, market price of the company's share and its book value of debt. Both market price of company's share and its book value of debt can be searched in the data of stock exchange of Thailand (SET), I-Sims. The market price of stock is available in market trading information and the book value of debt is available in company's financial statement of balance sheet.
Debt ratio	As mentioned that the financial statement of balance sheet is available in the company's data of I-Sims, all short term debts, long term debts, and total assets can be found in the company's balance sheet. Then, the debt ratio will be executed by taking such information into the formula that will be described in details in the next session.
Coverage ratio	Earning before interest, tax, depreciation, and amortization (EBITDA) and interest expenses can be searched from the selected company's financial statement of profit and loss statement or income statement, which is also available in the I-Sims of SET.

Variable	Source of information
Percentage shareholding of management	List of shareholders (Bor Or Jor 5) and the list of management (the selected sample) can be searched in I-Sims data or alternatively the documents for company registration at the Commerce Department. Then, the name lists of shareholders and management will be matched to figure out the no. of shares held by the management of the company. Finally, the percentage shareholding of the management can be computed by dividing the no. of shared held by the management with the total no. of shares outstanding.
Percentage shareholding of financial institution	From the list of shareholders (Bor Or Jor 5) as mentioned above, the no. of shares held by the financial institution can be searched. Then, the percentage shareholding of financial institution will be calculated by dividing the no. of shared held by the financial institutions with the total no. of shares outstanding.

From the market quote of common stock and financial statement of each sample, the market to book assets would be calculated by replacing the book value of equity with its market value then added up and divided by its book value of assets as follows:

$$\text{Market-to-book assets} = \frac{\text{(book value of debt + market value of equity)}}{\text{Total assets}}$$

For debt and coverage ratios calculation, information from financial statements will be investigated to calculate the ratios as follows:

Debt ratio is calculated by dividing the company's total debts or liabilities by its total assets as presented below:

$$\text{Debt Ratio} = \frac{\text{Short term and long term debts}}{\text{Total Assets}}$$

Coverage ratio is calculated by dividing the company's EBITDA by its interest expenses as shown below:

$$\text{Coverage Ratio} = \frac{\text{EBITDA}}{\text{Interest Expense}}$$

Percentage shareholding of financial institution and management are derived from the list of shareholders of the company compared to the name of financial institutions and name of management, and are calculated as follows:

$$\text{Percentage shareholding of financial institution} = \frac{\text{no. of shares holds by financial institution}}{\text{Total no. of common shares of company}}$$

$$\text{Percentage shareholding of management} = \frac{\text{no. of shares holds by management}}{\text{Total no. of common shares of company}}$$

4.4 Hypothesis of the Study

The hypothesis is applied to test the motivations of debt to equity conversion for debt restructuring in Thailand. The set of studied hypotheses determining the motivation or the relationship of the variables is based on the theories and empirical studies from the review of related literature and studies from the previous sector.

Applied hypothesis :

$H_0 : \beta_j = 0$ There is no relationship between the choice of debt to equity conversion and independent variable j

$H_j : \beta_j \neq 0$ There is relationship between the choice of debt to equity conversion and independent variable j

From the review of related literature, we can primarily classify the motivations for debt to equity conversions into three major categories with their own explanatory variables.

1. Growth opportunities – As debt to equity conversion serves lenders as the investors of the company, high growth company's shares are naturally preferred by the investors. Consequently, growth opportunities motivate the probability of debt to equity conversion, should lenders realize the excess economic value of the firm. This study employs the ratio of market to book assets as suggested by James (1995) in determining the motivations of growth opportunities to the choice of debt to equity conversion in corporate debt restructuring in Thailand.

Therefore, this study proposes the following hypothesis, describing the motivations for debt to equity conversion of growth opportunities.

H_1 : There is the positive relationship between the choice of debt to equity conversion and market-to-book assets

2. Insolvency Problem– Insolvency problems are reflected by the poor performance of the companies, as they cannot generate sufficient cash flows as expected to repay the due interest and debts. This means poor performance of the company that reflects in the ability to repay its obligations. To measure the ability of the firm in repaying its obligations, coverage ratio[1] is widely accepted and suggested by James (1995) as the explanatory variable to represent the firm's performance. Additionally, Gilson, John and Lang (1990) and James (1995) suggest that if lenders realize that firms' ability to repay their debt is substantial low due to their very poor operation, lenders may consider a concession of principal or interest to the firms. For the insolvency of the firm, his suggested explanatory variable is leverage ratio. Alternatively, this study employs the debt ratio to represent firm's insolvency.

This study, therefore, proposes the following hypotheses, describing the motivations for debt to equity conversion of insolvency problems.

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[1] Coverage ratio implies at least two dimensions of firms consisting of firm's performance as represented by operating profit and firm's serviceability as represented by the ratio itself.

H_2 : *There is the negative relationship between the choice of debt to equity conversion and coverage ratio.*

H_3 : *There is the positive relationship between the choice of debt to equity conversion and debt ratio.*

3. Corporate Governance – Corporate governance reflects the ownership and management structure of firms. Wiwattanakantang (1999) found evidence that, in Thailand, ownership structure affects the firm's capital structure. A firm with high ownership concentration or managerial ownership such as single-family owned firm tends to have high leverage to protect the dilution for such managerial ownership. Therefore, we can hypothesize from these facts that firms with high managerial ownership should reject the equity offering to their creditors.

In addition, this study has further investigated whether some portions of shares held by banks or firm's creditors will motivate debt to equity conversion, since they have already decided to invest in the firms. Kim and Limpaphayom (1998) study the corporate governance structure of the Keiretsu firm[1]. They found that under the distressed situation, financial institutions, as major shareholders within Keiretsu, would assist that firms to reduce their leverage level and probably provide them additional financial support. In Thailand, Wiwattanakantang (1999) found that on average banks and financial institutions hold approximately 6.75% of sample firms' capitals[2]. According to this evidence, unspecified relationships between Thai firms

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[1] Keiretsu firms, generally, refer to the typically firms that have extensive networks of corporate cross-shareholdings to their creditors, especially banks and financial institutions. The significance of Keiretsu network is that financial institutions within Keiretsu are served simultaneously both creditors and major shareholders of the firms. See Nakatani (1984), Aoki (1990), Hoshi, Kashyapamd Scharfstein(1990) and Kim and Limpaphayom (1998).

[2] Wiwattanakantang (1999) provides an investigation of the ownership structure of 270 non-financial firms listed on the Stock Exchange of Thailand in 1996. He found that 54% of firm's capital was held by individual, while totally 6.75% was held by bank (1.43%) and security and insurance companies (5.32%). However, in that time the shareholding is probably limited by the section 12(5) of Commercial Banking Act B.E. 2505, limiting bank's shareholding in other companies at 10% maximum of capital of those companies.

and their financial institutions like those in the Keiretsu firms are expected. Consequently, percentage of shares possessed by owner-managers and the percentage of shares owned by financial institutions should be able to explain the motivations for debt to equity conversion.

This study, therefore, proposes the following hypotheses, describing the motivations for debt to equity conversion of corporate governance.

H_4 : *There is the negative relationship between the choice of debt to equity conversion and percentage shares owned by management.*

H_5 : *There is the positive relationship between the choice of debt to equity conversion and percentage shares owned by financial institutions.*

Setout below is the summary of the expected outcome of each set hypothesis as described above.

Table 4.2

The Expected Outcome of the Set Hypothesis

Hypothesis	**Determinants of Debt to Equity Conversion**	**Expected Relationship**
1.	Market to book assets	Positive
2.	Coverage ratio	Negative
3.	Debt ratio	Positive
4.	Percentage shareholding of owner-manager	Negative
5.	Percentage shareholding of financial institution	Positive

CHAPTER 5

RESEARCH METHODOLOGY

This chapter introduces respondent descriptions and the methodology used to explain the motivations for debt to equity conversion in the corporate debt restructuring process in Thailand. Since this study's objective is to investigate whether there are any factors motivating the possibility of debt to equity conversion in the corporate debt restructuring, the researcher will employ regression techniques with a dummy dependent variable.

5.1 Methods used for the Study

Descriptive research and correlational research will be employed for this study. The general data and feature of the samples will apply descriptive research for readers' convenience in understanding and obtaining a clearer picture; while correlational research will apply to describe the quantitative variables in terms of relationship.

5.2 Respondents and Sampling Procedures

For the purpose of this study, the researcher collected the relevant data related to the set hypotheses mentioned in Chapter 4 in investigating the determinants of debt to equity conversion. Due to the reliability and publication of the data, especially financial information, the respondents will be distressed and restructured firms listed on the Stock Exchange of Thailand ("SET").

According to the preliminary data collected from SET and court, there are approximately 100 listed restructured firms, which is the total population of this study. Based on the theoretical sample size of Gary Anderson, Fundamentals of Educational Research (1996) and the expected sample size of approximately 70% to 80% of the total population, the study, consequently, expects 80 samples. Simple random sampling is used as the sampling procedure.

This study selected the population from the listed restructured companies in Thailand during 1997 to 2001. The population of this study are the successful restructured companies during such periods. Consequently, companies, which are listed under SET and successfully restructured its debt during 1997 to 2001, is in this study's population. For selecting the sample, the study's sampling unit is an individual unit, as this study investigates company by company and each listed restructured company is considered as an individual sampling unit. As mentioned earlier, this study applies simple random sampling in selecting samples.

5.3 Collection of Data/Gathering Procedures

Secondary data is the most preferred source of data for the study. Lists of restructured firms and approved restructuring schemes of applying debt to equity conversion can be found at the central bankruptcy court and SET library. The audited financial statements for the year ended 1996 to 2001 and other relevant data relating to shareholding and management will be gathered from various sources such as SET, I-SIMs, and from security and analyst companies.

In order to examine the determinants of debt to equity conversion, this study collects relevant data based on the set hypotheses as stated in Chapter 4. Firstly, this study outlines targeted firms as the distressed firms that are listed on the Stock Exchange of Thailand ("SET"), due to the accessibility of the data and the reliability of the financial statements.

This study defines target firms as the successfully restructured firms engaging in out-of-court debt restructuring or court-supervised reorganization processes. This study considers the success criterion of the restructured firms after obtaining the approval of restructuring plans from the majority of creditors or even from the bankruptcy courts. The *success date* is determined as the date of plan approval from the creditors. However, if the creditor approval date is not declared, the date of plan approval by the bankruptcy court, the signing date of debt restructuring agreement, or the approval date of the debt restructuring plan by the shareholders is used instead. For on-court debt restructuring, it can be determined the "success" based on an approval of plan by either creditors or the

bankruptcy court. If the approval by the creditors is not available, the court approval to determine the "success" criteria can be used instead. Normally, court-approved date is subsequent to creditor-approved date within two weeks to one month depending on cases by cases. In cases that the plan was approved by creditors, but rejected by the court, this study disregard the ultimate judgement from the bankruptcy court, since the court's judgement will mainly involve legal issues, which are out of the interests of this study. This study assumes that an approval of restructuring plan from majority creditors can reflect an economic decision relating to the restructuring scheme that is better than the court's judgement.

For those data needed further executed similar to encoding process, the several setup ratios, the raw data from such audited financial statements will be plugged into the formula for coding final analysis.

5.4 Statistical Treatment of Data

Binomial Regression Model

In particular, researchers analyzing choice of their study always cope with qualitative dependent variables, each of which is appropriately treated as a dummy, equal only to zero or one. Despite the ease of computation and interpretation of the linear probability model, to avoid the unboundedness problem, a variant of the cumulative logistic function of binomial logit model is applied. The binomial logit is an estimation technique for equations with a dummy dependent variable that avoids the unboundedness problem of the linear probability model. Therefore, applying binomial logit, the estimated probability result will be in the range of zero to one, escaping the problem of inability to interpret those unbounded samples.

In applying this logit or logistic regression model to analyze the motivations for the debt to equity conversion by examining the variables of growth opportunities, insolvency problems, and corporate governance, the equation can be summarized as below:

$$D_i = \frac{1}{1 + exp(-Z_i)}$$

$$Z_i = \beta_0 + \beta_1 MB_i + \beta_2 CR_i + \beta_3 DR_i + \beta_4 SHF_i + \beta_5 SHM_i$$

where:

MB_i = Market-to-book assets of company i

CR_i = Coverage ratio of company i

DR_i = Debt ratio of company i

SHF_i = Percentage of shareholding of financial institution of company i

SHM_i = Percentage of Shareholding of owner-manager of company i

The expected value of D_i continues to measure the probability of the sample to make a choice of debt to equity conversion as the debt restructuring scheme. When the D_i or probability is measured and equal or greater than 0.5, such sample has high chance to make choice of debt to equity conversion for its restructuring scheme; while when it is less than 0.5 or equal to 0, such sample has less or no chance or conclusively would not make choice of debt to equity conversion for its restructuring scheme.

From the statistic significant test, the *computed t value* will signify the significance of each selected independent variable at the selected confident interval or next confident interval. When *computed t value* exceeds the *critical t value* at the chosen level of significance with the same positive or negative sign as expected, the estimated coefficient of selected independent variable is statistically significant. After the statistic significant test has been signified; the intercept of regression coefficient of each selected variable will be applied, as criteria in determining the tested company would restructure its debt with debt to equity conversion or not.

The t-statistic test

$H_0 : \beta_j = 0$	There is no relationship between the choice of debt to equity conversion and independent variable j
$H_a : \beta_j \neq 0$	There is relationship between the choice of debt to equity conversion and independent variable j

If the *computed t value* exceeds the *critical t value* at the chosen level of significance, we may reject the null hypothesis and say that the estimated β_i is statistically significant, that is significantly different from zero. Therefore, the independent variable is the motivation for debt to equity conversion in corporate debt restructuring in Thailand.

In contrast, if the *computed t value* is less than the *critical t value* at the chosen level of significance, we cannot reject the null hypothesis and say that the estimated β_i is statistically insignificant. Therefore, the independent variable is not the motivation for debt to equity conversion in corporate debt restructuring in Thailand.

CHAPTER 6

PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

This chapter presents the estimated results of the logit model used to explain the determinants for debt to equity conversion in debt restructuring in Thailand. This chapter provides interpretations with alternative explanations of the results to explain the determinants for debt to equity conversion and also compares the results against the empirical works studied by previous researchers.

6.1 Research result

The sample of this study contains 88 observations; 50 are firms that participated in the debt to equity conversion restructuring scheme, and 38 firms that restructured their debt, but not involving debt to equity conversion schemes. The dependent variable (applying debt to equity conversion as a debt restructuring scheme or not) takes a value of one if there is debt to equity conversion scheme and zero otherwise. All financial data are gathered from I-SIMs and the firm's audited financial statements at a year prior to the restructuring. Ownership data are collected from the shareholders statement and some of them are available on by I-SIMs. Percentage shareholding represents the status of shareholders both owner-managers and financial institutions at a year prior to the restructuring. For independent variables, the firm's financial performance and insolvency are represented by Coverage Ratios and Debt Ratios. The growth opportunity is represented by the ratio of Market-to-Book Assets. Ownership characteristics are represented by percentage share owned by Owner-Managers and Financial Institutions. The logistic regression employs maximum likelihood estimation. The numbers in parentheses under the coefficient are p-values. In preparing logistically estimated results, inevitably, the financial data and ownership information of 88 distressed firms, listed in the Stock Exchange of Thailand ("SET"), for a year prior to the restructuring are applied to tell the relating logit regression results to the determinants of the debt to equity conversion. The logit model is tested by the maximum likelihood estimation (MLE). This study applies the t-statistic test and the exact levels of significance (P-value) to measure the

significance of each independent variable. In addition, this study also applies the likelihood ratio test to measure the overall goodness of fit.

Table 6.1 illustrates the results of this study, the determinants of debt to equity conversion of corporate debt restructuring in Thailand.

Table 6.1
Logistic Regression Relating the Determinants of Debt to Equity Conversion to Firm's Insolvency, Growth Opportunity, and, Ownership Characteristics For the Sample of Debt Restructuring Cases in Thailand during 1996 to 2001

Variable	Coefficient	Standard Error	t-Statistic
Intercept	0.07	0.042952	3.123313
Market to Book Assets	-2.87	-1.216071	-2.282371
Coverage Ratio	-0.03	0.006786	-0.988266
Debt Ratio	3.44	0.704939	3.162642
Percentage shareholding of owner-manager	-0.06	0.012295	-1.859784
Percentage shareholding of financial institution	0.05	0.210920	1.992642
R-squared	0.73224		
Adjusted R-squared	0.71445		
S.E. of regression	0.16811		
Durbin Watson Stat	1.75819		
F Statistic	0.41611		

Variable descriptions: Coverage Ratio equals the earning before interest and tax divided by interest expenses. Debt Ratio equals total book value of debt divided by total book value of assets. Market-to-Book Assets equals total book value of assets minus total book value of equity and plus market value of equity divided by total book value of assets. Percentage shareholding of Owner-Manager is represented by the shares owned by the management team including their families and closely relatives as presented in the shareholder statement provided on I-SIMs. In addition, percentage shareholding of Owner-Manager includes the shares owned by firm's related companies or its affiliates. Percentage shareholding of Financial Institution is represented by the shared owned by banks, and finance companies as firm's creditors. Percentage shareholding of Financial Institution also includes the securities companies, insurance companies and mutual funds that are the affiliates of those banks and finance companies. Portion of Public Debt is represented by total book value of public debt including secured and unsecured debenture and convertible debenture divided by total book value of debt.

Logistic Regression Results

The regression equation follows the setup equation as specified in chapter 5. Such equation explains the determinants of debt to equity conversion by the setup independent

variables relating to growth opportunities, insolvency problems, and corporate governance as shown below.

$$Z_i = \beta_0 + \beta_1 MBi + \beta_2 CR_i + \beta_3 DR_i + \beta_4 SHF_i + \beta_5 SHM_i$$

Table 6.1 presents the regression result relating to the set hypotheses, whose independent variables are market-to-book value of assets, coverage ratio, debt ratio, percentage shareholding of management, and percentage shareholding of financial institution. The results indicate that market-to-book value of assets, debt ratio, percentage shareholding of management, and percentage shareholding of financial institutions are estimated to be the determinants for debt to equity conversion with a significance level of 5%, 5%, 10%, and 5%, respectively. However, this regression indicates that coverage ratio is not the determinant for debt to equity conversion with its low statistical significance.

Under the maximum likelihood estimation method of this study, a likelihood ratio test is applied to test the overall significance of the model. The F statistic, which tests a null hypothesis of more than one coefficient, determines whether the overall fit of equation is significantly reduced by constraining the equation to conform to the null hypothesis. It is used most frequently in econometrics to test the overall significance of a regression equation. The F statistic of overall significance, therefore, is really testing the null hypothesis that the fit of equation isn't significantly better than that provided by using the mean alone. The estimate results are quite satisfactory in terms of such likelihood ratio tests. This research compares the estimated likelihood ratio with the critical value at the 95 percent confidence interval. Under this criterion, such a model's on the whole significant at a 95 percent confidence level since all estimated likelihood ratios are greater than each of the critical values. Conclusively, the regression equation from the result of this study is :

$$Z_i = 0.07 - 2.87MBi + 3.44DR_i - 0.06SHF_i + 0.05SHM_i$$

Explanation of the Variables as a Determinant of Debt to Equity Conversion

1) Market-to-Book Assets

The research's result reports consistently that market-to-book value of assets is significantly one of the main determinants for debt to equity conversion. Nevertheless, the research result indicates that market-to-book value of assets is correlated negatively to the likelihood of debt to equity conversion. Unfortunately, the research result contrasts to that of James (1995), who indicated positive relationship between market-to-book assets and the chance in converting debt to equity by creditors.

As mentioned earlier, this ratio is a representative of a firm's growth opportunity, argued by James (1995). The practice is that creditors tend to take equity stakes in firms with high growth opportunities in exchange for their claims rather than a pure debt concession. It is claimed that banks may subsequently close their positions by selling out the shares at a higher price than the converting price to get some capital gains. However, the results are not supported by the hypothesis.

The findings indicate that even though banks foresee a firm's growth opportunity, there are some other factors discouraging this factor to motivate debt to equity conversion. The alternative explanations for bank's points of view may be described by bank-aversion hypothesis and bank's motivation from capital gain.

Firstly, based on the bank-aversion hypothesis, banks avert to accept debt to equity conversion, since they are constrained with the legal restrictions and provisions required in an exchange of concession of claims. The bank-aversion hypothesis also illustrates that debt to equity conversion should be the last option for firms and banks, and the scheme would be employed if they were in a desperate position to recover their claims. Narongtanupon (2000) found evidence that most of distressed debt restructurings are settled with non equity-related schemes according to the evidences found in debt restructuring in Thailand.

Consequently, it can be observed that firms with growth opportunities have a strongly potential to recover from their distressed positions, banks would recognize the growth in the firms as a mean to reduce their loss from debt restructuring. Thus, instead of debt to equity conversion, banks would consider non equity-related restructuring schemes

such as debt rescheduling, interest concessions, or maturity extensions, as more favorite schemes employed to restructure their debts. Nevertheless, banks would consider debt to equity conversion as an alternative scheme when firms really struggle in desperate situations, in which banks could hardly recover their claims.

Moreover, based on the market valuation concept, since the market-to-book assets indicate the valuation of firms by the market expectation, firms with low market-to-book assets are likely the undervalued firms, while firms with high market-to-book assets are likely the overvalued firms. Therefore, it is more likely for banks to get capital gains by converting their debts to equities of firms that is undervalued from an increase in assets value to the fair value. On the other hand, it is less likely for banks to convert their debt to equity on firms that are overvalued, since banks may expect capital losses from a decrease in asset value to their fair value. In these aspects, banks as creditors, who retain inside information of firms through the monitoring mechanism, will realize whether the firms are overvalued or undervalued. If banks realize that firms are undervalued, it is more likely for banks to take up equity in the firms, since banks expect potential gains from price increases. On the other hand, if banks acknowledge that firms are overvalued, banks will not accept equity in exchange of their claims since the expected capital loss might be higher than loss from providing a concession by pure hair cut from their management costs and transaction costs.

Additionally, based on the firm's point of view, the corporate governance concept can alternatively explain the results of why firms with high growth opportunities are less likely to offer their equity to restructure their debts. As discussed in the previous chapter that most of the Thai firms are family-owned firms, in which the owner-manager plays an important role as the management and major shareholder of the firm. Owner-manager as an insider, who can assess all aspects of firms, would not prefer the debt to equity conversion if firms really have growth opportunities. This is because owner-manager's stake in such growth will be diluted and transferred to their lenders as new shareholders. This argument is supported by Brown, James and Mooradian (1993).

Hence, it can be concluded from the alternative explanation that debt to equity conversion is inversely correlated to a firm's market-to-book assets. That is firms with high market-to-book assets are less likely to restructure their debts with debt to equity

conversion, while firms with low market-to-book assets are more likely to apply debt to equity conversion as a restructuring scheme.

2) Coverage Ratio

Although research results illustrate negative relationship between coverage ratios and possibility to take debt to equity conversions as expected, it is found that coverage ratio is statistically insignificant to be the determinant for debt to equity conversion. This finding is consistent with the previous empirical studies of James (1995) and Narongtanupon (2000), who found statistical insignificance of coverage ratio in determining the probability of banks or creditors to take equity of distressed firms.

Despite its insignificant statistics, the results indicate a negative relationship between coverage ratio and the possibility of taking debt to equity conversion. As the coverage ratio can be well applied to signify the firm's past performance, it is found that the firms in which banks take equity have significantly poor operating performance in the year prior to the restructuring, found by Brown, James, and Mooradian (1993) and James (1995). Gilson, John, and Lang (1990) and James (1995) indicated correspondingly that the poor performing firm tends to offer debt to equity conversion to banks to reduce its obligation. Therefore, a negative sign of coverage ratio, as a representative of firm's performance, in the setup model of this study is in line with the negative relationship indicated by those previous researchers.

However, due to its statistical insignificance, it can be concluded that there is no significant evidence to support the relationship between the coverage ratio and being a determinant for debt to equity conversion of corporate debt restructuring in Thailand. This may also be confirmed with the fact that coverage ratio represents firm's ability to service their interest obligation, which can be usually negotiated[1]. The ratio is not strong enough

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[1] Normally, at the beginning of restructuring, bank will provide interest rate concession to firms as they recognized that firm's interest rate serviceability is poor. Practically, banks may consider a concession by giving up or deferring some portion of interest charged for firms during the struggled period. Until firm's performance improves, banks will charge at normal interest rate or force firms to pay that deferred portion. The rationale of this scheme is that if banks do not allow any interest rate concession, distressed firms may

to explain the necessity for firms and banks to accept debt to equity conversion. Although coverage ratio is one of the major factors to be considered for the purpose of debt restructuring, it is not significantly drive the debt to equity conversion restructuring schemes to be employed.

However, based on the research's results, it is presumed that the firm's past performance is one of the factors used to determine the method of debt restructuring. Significantly poorly performing firms probably tend to restructure their debt by offering equity, as they cross the line of insolvency, as they default to service not only interest but also the principal. Therefore, this leads to the concerns of insolvency problems rather than the firm's performance.

3) Debt Ratio

The study result specifies that debt ratio, as a leverage ratio, is the determinant for debt to equity conversion with a statistical significance. The previous researches of Brown, James and Mooradian (1993), who found that banks would be convinced by high leverage firms to take their equity stakes in an exchange for debt concession, are coherent with the study result. James (1995) also supports this evidence.

The primary rationale supporting this finding is that insolvency firms tend to offer their equity in repaying their debts to the banks, as they really go bankrupt and are not able to repay for their debt outstanding. Additionally, bank-aversion hypothesis also strengthen the finding with its indication that banks will accept the debt to equity conversion of the distressed firms only if they are in desperate positions to recover their claims. That is the probability for banks to accept debt to equity conversion will increase when firms or debtors are more likely to go bankrupt.

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not be able to service interest according to the debt restructuring agreement and eventually they would default again. The restructuring will not be effective. Puapongkorn (2000) found that 22% of total restructuring cases in Thailand employ this interest concession scheme.

However, sometimes, banks may be asked for unnecessary debt concessions when firms are afraid that offering their equity would reveal their poor prospects to banks. These evidences were found by Brown, James, and Mooradian (1993).

According to the regulation for debt restructuring pursued by Bank of Thailand[2], banks are required to make a 100% reserve for any investment in the firms with negative net worth. Firms with negative net worth means the firms, whose book value of their liabilities is higher than the book value of their assets, especially the distressed firms with a debt ratio of more than 1. Therefore, based on accounting basics, the effects on a banks' net assets from taking debt to equity conversion are not different from giving debt concessions to the firms. However, based on the investment view, taking debt to equity conversion of distressed firms gives banks a chance to get something in return rather than the pure hair cut scheme. Banks would foresee a potential return from either buy-back option program granted to the existing shareholders or a disposition to the potential investors. This alternative gives banks better positions than immediate debt concession.

In conclusion, this study claims that the insolvency condition, represented by debt ratio, is a determinant for debt to equity conversion for their debt restructuring in Thailand. Firms with high insolvency status are more likely to restructure debt with offering part of their equity stakes to the creditors as a debt repayment mechanism. Furthermore, the insolvency condition of the firms is also the determinant for banks to accept the offered equity. Also, based on bank-aversion hypothesis, banks are encouraged to take equity when they realized that firms are in serious insolvency situation.

4) Percentage shareholding of Owner-Manager

According to the study results with the significance statistics in set equation, it indicates that firms, whose management holds a large portion of the firms' shares, generally avoid to restructure their debts with debt to equity conversions. This can be explained simply by the fact that owner-manager, who owns a major shareholding and

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[2] See, the regulations for debt restructuring of financial institution, dated June 1, 1999, the bank of Thailand, available on http://www.bot.or.th.

holds the top management positions in the firms, averts to dilute his absolute controlling power to banks as new major shareholders[3] after debt restructuring. The coming banks as large shareholders will deteriorate the owner-manager positions of not only ownership but also the management power.

Wiwattanakantang (1999) indicated that the major shareholders, who own majority of outstanding shares of the firm at least 25% with no other major shareholders, will try to retain his controlling power over the firm. This study asserts the set hypothesis that the owner-manager avoids to dilute his control to banks when banks become large shareholders of firms. In addition, as found by Gilson (1990), after restructuring banks will intervene on board of director and management turnover. Consequently, these facts attribute to owner-manager's discouragement to accept or offer the debt to equity conversion scheme to restructure the firm's obligations.

This study's result is also consistent with the empirical study of Narongtanupon (2000), who found the negative significant relationship between the percentage of shares owned by large shareholders and the probabilities that banks take equity. He explains the results that large shareholders have sufficient incentives to monitor management. They might not desire additional effective monitoring from banks.

In addition to the corporate governance aspect, based on the information asymmetry theory, equity exchange offer conveys a bad signal to the outsider and results in a decline in share prices. This information transferring discourages owner-manager to offer equity to banks under corporate debt restructuring. Based on that fact, it can be noticed that firms with high levels of managerial ownership generally tend to retain a high leverage, in particular firms in Asian countries. This is claimed by Wiwattanakantang (1999).

Therefore, based on the results, firms with high level of shares owned by owner-manager tend to reject debt to equity conversion scheme, as the owner-manager averts to dilute its absolute controlling power from sharing his stakes to banks, as new major

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[3] Conventionally, large shareholders are defined as an individual, corporation, or institutional investor who holds at least 5% of total outstanding shares.

shareholders through debt to equity conversion debt restructuring scheme. However, firms with low level of owner-management are more willing to offer equity to their creditors.

5) Percentage shareholding of Financial Institution

According to the regression results, it is found that a percentage of shares owned by financial institutions is a determinant of debt to equity conversion with a positive statistical significance. This implies the high percentage shareholding of financial institutions in distressed companies, the high chance for them to convert their debt into equity of such companies in restructuring their debts. The results can be justified by the Keiretsu relationship as found widely in Japan. Kim and Limpaphayom (1998) found that under the distressed situations bank shareholders in Keiretsu firms will try to reduce the firm's leverage and probably help boost the distressed situation with financial support to those firms. This is asserted by the fact that banks, as shareholders, also try to keep their wealth in those firms.

Gilson (1990) also indicated that, through holding a substantial portion of shares in the firms, banks will become major shareholders and be able to exert more monitoring programs and influence management in order to reduce agency costs and increase the firm's value. This incentive would drive banks to take equity offering. Correspondingly, Narongtanupon (2000) found that banks generally take equity when firms fall lack of effective governance. By acquiring the firm's shares, banks will have all rights and duties of being shareholders of the firms, which are not obtainable by being creditors of the companies. By this way, banks allow themselves to access all the firm's activities even the management policies.

For legal issues, the authorities' temporal exemption in relaxing the limit of bank's shareholding percentage in other companies accommodates banks to restructure their debt through debt to equity conversion scheme. By this study, it is implicitly found that legal constraints are powerless to restrict the debt to equity conversion under debt restructuring in Thailand.

In conclusion, percentage shareholding of financial institutions is a determinant of debt to equity conversion. If banks formerly hold equity stakes in the restructuring firms, it is more likely for bank to accept the equity offering in exchange of their claims.

6.2 Sample Characteristics

Table 6.2 describes the industry category of 88 distressed firms in the sample. They are collected from the successful debt restructuring among 24 industries[4]. Most of firms are involved in Property Development and Building and Furnishing Materials, accounting for 22% and 19%, respectively; while Household Goods, Communication, Printing and Publishing, Foods and Beverage represent in the range of 3% to 6% of the total samples. This proportion clearly shows the actual causes of the property bubble in Thailand in 1996, as a major factor of the Thai economic crisis, was from the Property Development and Building and Furnishing Materials. The successes of debt restructuring of these firms will improve the economic situation.

The SET reclassified these companies under the rehabilitation section from their original industry categories, since all of them have a negative net worth and cannot resolve the problem within SET's timeframe. The companies under the rehabilitation are not allowed to trade and are suspended by "SP" marks. After they succeed in their debt restructuring or rehabilitation, SET will permit them to be classified into their original industries and will be traded on the board again.

[4] Actually, we have totally 24 industry categories. However, Table 6.1 presents only 17 industry categories as detailed. The remaining of 7 industries are categorized in "Others" group, consisting of one firm each in Leasing, Jewelry and Ornaments, Hotels and Travel Services, Energy, Entertainment and Health Care Service.

Table 6.2
The Summary of 88 Sample Firms Classified by Industry

The sample contains 88 distressed firms, which engage in debt restructuring during 1996-2001, The industry classification is based on a list of industries categorized by SET. The sample contains a total of 24 industries, in which 17 industries are presented on the table, and the rest of 7 industries are classified in "Others" category. The 7 distressed firms in "Others" group consists of one firm each in Leasing, Jewelry and Ornaments, Hotels and Travel Services, Energy, Entertainment, and Health Care Service. The Companies under rehabilitation category is the new category that SET rearranged the rehabilitated firms from various industries into this category based on SET's criteria. However, this study rearranged all of them back into their original industry classification for the analysis purpose.

Industry	*Number of Firms*	
	Firms	*Percentage (%)*
1 Property Development	19	21.59
2 Building and Furnishing Materials	17	19.32
3 Household Goods	5	5.68
4 Communication	5	5.68
5 Printing and Publishing	3	3.41
6 Foods and Beverages	4	4.55
7 Electrical Products	3	3.41
8 Vehicles and Parts	2	2.27
9 Textiles, Clothing and Footwear	3	3.41
10 Pulp and Paper	2	2.27
11 Packaging	2	2.27
12 Machinery and Equipment	3	3.41
13 Commerce	3	3.41
14 Chemicals and Plastics	3	3.41
15 Agribusiness	3	3.41
16 Transportation	2	2.27
17 Mining	2	2.27
18 Others	7	7.95
Total	88	100.00
(*) Companies under Rehabilitation	35	39.77

Financial Characteristics

Table 6.3 provides a descriptive statistical analysis on the financial characteristics of the 88 samples. This study divides the sample into 2 major groups based on whether debt to equity conversion is employed as a debt restructuring scheme or not.

Table 6.3
Selected Financial Characteristics for 88 Distressed Firms Engaging in Debt Restructuring during 1996 to 2001

The sample contains 88 distressed firms, which engage in debt restructuring during 1996 to 2001, There are 50 firms that employed in debt to equity conversion and 38 firms that restructured their debt without offering equity converting for their debts. Firm's financial data is collected from I-SIMs and firm's audited financial statement for fiscal year end immediately preceding the debt restructuring. All numbers are in millions of Baht unless indicated.

Characteristics		Entire Sample		Debt to equity Conversion		Non Debt to Equity Conversion	
		Mean	Median	Mean	Median	Mean	Median
Balance Sheet Status							
Book Value Assets (mn)		10,777.29	3,346.52	13,592.78	4,220.19	7,072.69	2,196.96
Book Value Equity (mn)		1,098.94	188.87	1,198.80	98.59	967.55	307.67
Paid-up Capital		1,664.66	483.59	2,133.77	500.00	987.64	462.00
Book Value Liabilities (mn)		1,638.85	3,438.37	12,469.80	4,532.55	5,815.77	1,998.67
Growth Opportunities							
Market -to-Book Assets	(1)	1.19	1.03	1.28	1.06	1.06	0.99
Leverage							
Debt Ratio	(2)	1.25	1.05	1.23	0.97	0.95	0.82
Debt/Equity Ratio	(3)	3.10	2.02	3.59	1.62	2.13	2.05
Solvency Ratio	(4)	0.68	0.69	0.66	0.68	0.62	0.65
Past Performance							
Coverage Ratio	(5)	-0.52	-0.35	-0.66	-0.41	-0.33	-0.28
Net Profit Margin		-1.19	-0.30	-1.67	-0.36	-0.56	-0.21
Return on Assets		-14.99	-12.56	-16	-13.33	-13.67	-11.54
Return on Equity		-0.78	0.08	-1.32	0.11	-0.08	0.04
Sample Size		88		50		38	

(1)Market-to-Book Assets equals total book value of debt plus market value of equity, then divided by total book value of assets. (2)Debt Ratio equals book value of short and long term debts divided by total book value of assets. (3)Debt/Equity Ratio equals total value of debt divided by total book value of equity. (4)Solvency Ratio is represented by dividing short-term and long-term loans by total book value of debt plus market value of equity. (5)Coverage Ratio equals the earning before interest and tax divided by interest expenses.

From the table 6.3, it indicates the average financial characteristics of debt to equity group, non debt to equity group, and average of overall sample. Several financial features of the samples are different between debt to equity and non debt to equity groups. Firms engaging in debt to equity conversion tend to be larger than firms that restructured their debts without debt to equity conversions. This can be seen by the two times bigger mean and median of book values of asset and liabilities of debt to equity group than those of non debt to equity group.

With additional statistics on the firm's leverage, it is found in overall that debt to equity side procures more financial leverage than the non debt to equity side does. These facts correspondingly comply with higher amounts of debts or liabilities in debt to equity distressed firms side.

Considering a firm's performance, firms that offer debt to equity conversions have a significantly low coverage ratio, which indicates poor interest serviceability and high probability of debt repayment defaults. Moreover, the evidence conveys that firms in which banks take equity usually perform poorer than firms that banks do not take equity. This is indicated by a significantly lower of net profit margin and return on equity.

Incidentally, the evidences on market-to-book assets might not support the set hypotheses, as both of such 2 groups are indifferent whether banks take equity. It has to be noted that the evidences relating market to book value assets for both debt to equity conversion firm and non debt to equity conversion firm in the samples are contrast to those evidences found by James (1995). As mentioned earlier, the results relating to the hypotheses of these variables might generate contradict interpretations to James (1995).

Ownership Structure

Table 6.4 describes the firm's ownership structure for a year prior to the success of its debt restructuring. Based on the sample, the largest shareholding between the firms with debt to equity conversion and non debt to equity conversion firms presents in an insignificantly different manner. The largest shareholder on average holds approximately 30% of the total share capital. It is noticed that the controlling power in firms with non debt to equity conversion tends to be concentrated than firms with debt to equity conversion. The non debt to equity conversion firms, on average, have 3.65 shareholders who owned together higher than 50%, while, the debt to equity conversion firms have 4.69 shareholders. This implied that, in non debt to equity conversion firms, the major shareholders hold higher portion of share outstanding than the percentage shareholdings of major shareholders in debt to equity conversion firms. In other words, non debt to equity conversion firms, on average, have a higher managerial ownership

Table 6.4
Ownership Structure for 88 Distressed Firms Engaging in Debt Restructuring during 1996 to 2001

The sample contains 88 distressed firms, which engage in debt restructuring during 1996 to 2001, There are 50 firms that employed in debt to equity conversion and 38 firms that restructured their debt without offering equity converting for their debts. Ownership data are collected from the Shareholders statement and some of them are available on provided by I-SIMs. Percentage shareholding represents the status of shareholders both owner-manager and financial institution at a year prior to the restructuring.

Characteristics	Entire Sample		Debt to Equity Conversion		Non Debt to Equity Conversion	
	Mean	Median	Mean	Median	Mean	Median
Shareholder Structure						
Percentage shareholding						
Largest Shareholder (%)	0.30	0.28	0.29	0.28	0.32	0.28
No. Shareholders Own together >50%	4.24	3	4.69	3	3.65	3
Percentage shareholding by Type of Shareholders						
Owner-Manager (1)	0.26	0.22	0.22	0.16	0.32	0.31
Financial Institution	0.13	0.12	0.16	0.13	0.11	0.08
Related/Holding Companies	0.19	0.06	0.22	0.12	0.15	0.00
Firms with Large Shareholders (2)						
Average Shareholding (%)	0.18	0.15	0.16	0.15	0.20	0.16
No. Of Large Shareholders	3.76	4	3.68	4	3.91	3
Sample Size	88		50		38	

(1)Percentage share owned by owner-manager represent managerial ownership of major shareholders who play a role of management in the firm. The percentage share owned by owner-manager includes shares owned by all management members and their families or closed relatives. (2)Large shareholders represents an individual, including corporation and institutional investors who own at least 5% of the outstanding shares in the shareholder statement for a year prior to the success of debt restructuring.

Additionally, there are significant differences among the composition of shareholders between debt to equity conversion firms and non debt to equity conversion firms. Debt to equity conversion firms have, both mean and median, related to a lower portion of owner-management, but a higher portion of shares owned by financial institutions relative to non debt to equity conversion firms. Moreover, debt to equity conversion firms have percentage shareholdings by their related companies or holding companies higher significantly than non debt to equity conversion firms do. In relation to the large shareholders, the entire samples of both debt to equity conversion firms and non

debt to equity conversion firms have a large shareholder, who owns at least 5% of the total outstanding shares of firms. However, there is no significant difference on the number of large shareholders between debt to equity conversion firms and non debt to equity conversion firms, but the percentage of shares they hold. On average, debt to equity conversion firms have a lower percentage shareholding of large shareholders compared to non debt to equity conversion firms. These facts support the set hypotheses relating to an influence of corporate governance as a determinant for debt to equity conversion.

Summary of Debt Restructuring Schemes

Table 6.5 summarizes the debt restructuring schemes employed by the sample of this study, indicating that half of the troubled debts are restructured by the rescheduling of debt repayments by providing a grace period, interest rate concessions, and the extension of repayment periods, accounting for 49% total restructured debts. However, debt forgiveness, asset and debt setoff, and debt to equity conversion are considerable restructuring schemes, accounting for 19%, 12%, and 9% of total restructured loans, respectively. These statistics are quite interesting, since debt forgiveness and debt to equity conversion indicate that banks provided a significant portion of debt concession totally amounting to 28% of restructured loans to their debtors, excluding the asset and debt setoff with inferiority assets.

The higher debt write off portion of 22% for debt to equity converting firms to the 15% of non debt to equity conversion firms indicates that debt to equity converting firms have poorer debt serviceability and banks have to provide more debt write off portions for the success of debt restructuring and viability of the firms. Additionally, from their poor serviceability, debt to equity conversion firms also offer larger portion of their assets and equities in exchange for reduction of their obligations. Debt to equity converting firms offer a total of 31% of total restructured loans for asset exchanges including equity conversions, while non debt to equity converting firms propose a total of 11% of their restructured debts. Consequently, banks have to accept debt rescheduling, mainly representing the serviceability portion of the firms, at a relatively low portion of 35% of their claims from debt to equity converting firms, compared to 63% from non debt to equity converting firms.

Table 6.5
The Summary of Debt Restructuring Schemes

This table presents the summary of debt restructuring schemes of distressed firms in the sample. The details of the debt restructuring are gathered from available sources including the notes to financial statement, rehabilitation plan, and news disclosed on I-SIMs. Restructured debt is the principal and accrued interest that are restructured based on the regulation of the Bank of Thailand including the schemes of debt rescheduling, debt forgiveness, assets transfer, debt-equity swap, and other exchange offers. Debt rescheduling consists of granting grace period, interest rate concession, and the extension of repayment period. Cash up-front is defined as a debt repayment within one-year period. Hair cut or debt forgiveness includes both principal and accrued interest concessions. Asset and debt setoff includes transferring of possession of the mortgaged assets and also the other assets, including land, building, accounts receivable, and financial instruments issued by other firms, to repay the debts. Convertible securities include the hybrid securities such as convertible preferred stock, convertible debenture, and warrant.

Restructuring scheme	Entire Sample	Debt to Equity Conversion	Non Debt to Equity Conversion
	Mean	Mean	Mean
Debt Restructuring Scheme			
% of Total Restructured Debt			
Debt Rescheduling	0.49	0.35	0.63
Cash Up-front	0.06	0.04	0.08
Hair Cut or Debt Forgiveness	0.19	0.22	0.15
Asset and Debt Setoff	0.12	0.12	0.11
Exchange Offer			
Debenture	0.02	0.02	0.01
Debt to Equity Conversion	0.09	0.19	0.00
Convertible Securities	0.03	0.06	0.00
Others	0.00	0.00	0.03

Furthermore, statistics indicate that when banks take equity from debt to equity conversions, banks usually acquire significantly high shareholding proportions in the firms. From the sample, banks on average received 47% of equity stake in distressed firms.

Figure 6.1 : Shareholding Percentage of Creditors after Debt Restructuring with Debt to Equity Conversion.

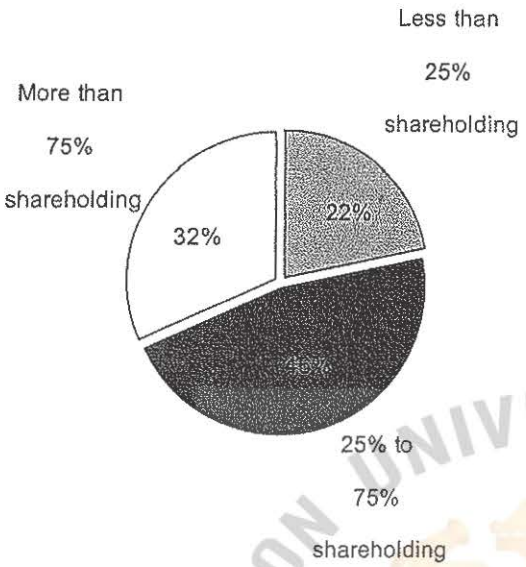

Figure 6.1 shows that 39 of the 50 cases or 78% of banks altogether hold equity higher than 25% of the firm's capital after debt to equity conversion. This consists of 16 cases in which banks totally hold equity higher than 75% and 23 cases in which banks totally hold equity to a range between 25% to 75%. From this study, it is found that banks hold equity of the distressed firms at a maximum of 100%, while at a minimum of 1%. These evidences support the arguments of Gilson (1990) and Narongtanupon (2000) that when banks are offered debt to equity conversion, they usually acquire not only the offered equity but also the controlling power in such firms. That is banks will become new large shareholders, who have right to control and influence all firm's activities on overall management areas, including the firm's policies.

CHAPTER 7

SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATION

7.1 Summary of Findings

From the research findings, they are able to answer the statement of problem of this study and summarized as shown in the table 7.1.

Table 7.1
Summary of Research Findings

Determinant for Debt to Equity Conversion	Coefficient	Relationship to Debt to Equity Conversion	T-Statistic
Market to Book Assets	-2.87	Negative	-2.282371
Coverage Ratio	-0.03	Negative	Not significant
Debt Ratio	3.44	Positive	3.162642
Percentage shareholding of Owner-Manager	-0.06	Negative	-1.859784
Percentage shareholding of Financial Institution	0.05	Positive	1.992642

According to the research findings, four determinants of debt to equity conversion are market to book assets, debt ratio, percentage shareholding of owner-manager, and percentage shareholding of financial institution; while the market to book assets represents the growth opportunities of the firms, debt ratio represents the insolvency problems of the firms, and the percentage shareholding of owner manager and financial institution represent the corporate governance of the firms, which are the three major areas of the study. Consequently the equation from the findings of this study is :

$$Z_i = 0.07 - 2.87MBi + 3.44DR_i - 0.06SHF_i + 0.05SHM_i$$

Market to book assets, representing the growth opportunities of the restructuring firms, statistically and significantly has negative relationship with the decisions on debt to equity conversion as a debt restructuring scheme. Although this finding contradicts to the previous study of James (1995), who indicates the positive relationship between market to book assets as the firms' growth opportunities to the choice of debt to equity conversion, it can alternatively be explained with the creditors' aversion hypothesis, supported by the Narongtanupon (2000), and creditors' motivation from capital gains of the market

valuation concept. Additionally, the restructuring of firms, whose businesses are run by owner-managers, the family-owned style firms, internally know the firms' growth opportunities and prevent the dilution of such growth to the others, also argued by Brown, James, and Mooradian (1993).

The coverage ratio, which is one of the representatives of the firm's insolvency problems, has negative relationship with the choice of debt to equity conversion on the debt restructuring scheme, but is not statistically significant to be a determinant for debt to equity conversions. Due to its statistical insignificance, this may be explained that the coverage ratio, which represents the firm's past performance in its interest serviceability, is not strong enough to recommend the necessity in employing the debt to equity conversions, as the interest payments are normally negotiated under debt restructuring processes. This is also supported by the empirical study of puapongkorn (2000), who found 22% of total restructured debt employed interest concession under the debt restructuring scheme. Therefore, the coverage ratio, according to the research results, is not a determinant for debt to equity conversion for corporate debt restructuring in Thailand.

Debt ratio, as a leverage ratio and the representation of the firm's insolvency problems, indicates statistical significance with a positive relationship to decide the debt to equity conversion according to the research findings. This finding is supported by the researches of Brown, James, and Mooradian (1993) and James (1995), who found that firms with high financial leverages tend to offer equity in exchange for debt concessions. Also, creditors' aversion hypothesis of Narongtanupon (2000) strengthens this finding, indicating that banks or creditors tend to employ several non-equity restructuring schemes before debt to equity conversion restructuring scheme, which has high probability for high leverage firms. This is also supported by the financial characteristic of the sample firms, which presents the higher debt ratio for firms, who engage with debt to equity conversions, relative to the firms, who restructure their debts without the scheme of debt to equity conversions. Additionally, the higher coverage ratio of debt to equity converting firms also indicates more serious insolvency problems to those non debt to equity converting firms.

Percentage shareholding of owner-managers, which is one of the representative of corporate governance, has negatively been related to the choice of debt to equity

conversion as a debt restructuring scheme and is statistically significant at the 10% level. This can be explained simply by the fact that the owner-managers, who own major shareholdings and hold the top management positions in the firms, avert to dilute their absolute controlling power to banks as new major shareholders after debt restructuring. This is openly supported with the empirical study of Narongtanupon (2000), who found the significantly negative relationship of high percentage shareholdings of large shareholders and the probability of decision for debt to equity conversions. Additionally, this is also implicitly supported by Wiwattanakantang (1999), who indicated that the major shareholders with at least 25% shareholding will try to retain their controlling powers over the firm, as well as Gilson (1990), who found that banks will intervene on board of directors and management turnovers after debt restructuring process. These facts attribute to owner-manager's discouragement to accept or offer the debt to equity conversion scheme to restructure the firm's obligations. Furthermore, the ownership structure of the sample firms also support this finding, as it proves higher shareholding proportion of owner-managers in firms, who do not restructure their debts with debt to equity conversions, relative to those debt to equity conversion firms.

Percentage shareholding of financial institutions, yet another representative of corporate governance, indicates the statistical significance and positive relationship with the employment of debt to equity conversion as a debt restructuring scheme. The result can be justified by the Keiretsu relationship as found widely in Japan. To reduce the agency cost and increase firms' value, banks or creditors become large shareholders and exert operating and monitoring activities of the firms, Gilson (1990). Additionally, Narongtanupon (2000) found that banks generally take equity when firms lack of the effective governance. By acquiring the firm's shares, banks will have all rights and duties of being shareholders of the firms, which are not obtainable by being creditors of the companies. These motivates banks and creditors to take more shareholding in the restructured firms. For legal regard, the authorities' temporal exemption in relaxing the limit of bank's shareholding percentage in other companies also accommodates banks to restructure their debt through debt to equity conversion scheme. Furthermore, the ownership structure of the sample firms also support this finding, as it proves higher shareholding proportion of financial institutions in restructured firms, who restructure their debts with debt to equity conversion, relative to those non debt to equity conversion firms.

7.2 Conclusions

This study investigates the determinants of debt to equity conversion in corporate debt restructuring in Thailand with emphasis on three major areas of the firm's insolvency problems, growth opportunities, and corporate governance. Based on the results, the determinants for debt to equity conversion are debt ratio, market-to-book assets, percentage shareholding of financial institutions, and percentage shareholding of owner-managers.

Based on the findings, it can be implied that debt to equity conversion is not a favorite scheme for corporate debt restructuring in Thailand. Debt to equity conversion is considered as the last measure in corporate debt restructuring. The evidence indicates that debt to equity conversion will be employed effectively only when banks and firms are in desperate situations, in which banks realize that firms are truly insolvent and there are no other favorite schemes for banks to recover their claims.

Additionally, this study finds that even though firms retain high growth opportunities, it is not a determinant persuading employment of debt to equity conversion as a debt restructuring scheme for distressed firms. This evidence contrasts previous researches, which indicate that banks are more likely to accept equity in high growth opportunity firms. This can be explained, since banks realize firms with growth opportunities have a strong potential to recover their distressed position, banks will gain higher benefits from a firm's growth opportunities by rescheduling the debt repayment rather than debt to equity conversion as a postponed debt concession restructuring scheme. Instead of debt to equity conversion, banks would consider the non equity-related restructuring schemes, which will donate a higher recovery rate. Additionally, banks also realize the high market value of high growth opportunity firms, where the assets price tends to decline to reach their fair value. Therefore, banks will not accept debt to equity conversion since the expected loss is probably higher than the loss from providing the hair cut concessions.

This study's results also indicate that the corporate governance plays an important role in determining the motivations for debt to equity conversion. The negotiation on debt to equity conversion would be more difficult, if firms retain high portion of managerial ownership, since owner-managers normally avert the dilution of their absolute controlling

on firms' operation. Inversely, if banks have close relationship and hold a portion of shares in the distressed firms, it is more likely for banks, as a former shareholders, to take debt to equity conversion; since banks wish to acquire more control over the firms to improve the distressed situation.

However, from the results, it is concluded that debt to equity conversion might not be an appropriate debt restructuring scheme to the Thai business culture, which mainly are family-business models. In addition, on the bank's side, the conflict of interest and adverse selection are major concerns in employing debt to equity conversion as a debt restructuring scheme. Banks have to play an important role to serve as both creditors and shareholders, containing high conflict of interest. Besides, adverse selection will indirectly deteriorate a bank's balance sheet by taking equity of poorly performing firms. However, optimistically, debt to equity conversion is a useful method to assist firms in the distressed situations. This will, eventually, drive the recovery of the economy.

7.3 Recommendation

According to the research results, growth opportunities (represented by market to book assets), insolvency problems (represented by debt ratio), and corporate governance (represented by percentage shareholding of owner-manager and financial institutions) are determinants of debt to equity conversion for debt restructuring in Thailand. Creditors and debtors could apply the equation from this study as a benchmark in making decision of employment of debt to equity conversion for their debt restructuring. Although debt to equity conversion debt restructuring scheme is effective in recovering the severe debt restructuring, consideration in employing of restructuring scheme has to be considered case by case according to the features of the firms and restructured debt itself.

However, as the objectives of debt restructuring are to help the firms to be sustainingly viable in their business and help in recover of the economy of the country, both creditors and debtors need to consider in additional features in making decision of debt to equity conversion.

- **Viability of the firm.** Viability of the restructuring firm is importantly to be considered with the decision of debt to equity conversion, as shown in the

research result of high coefficient in growth opportunity of the firm, market to book assets value. This is because the market to book assets directly illustrates the firm's aspects in the future. Moreover, considering in the end result, debt to equity conversion is able to reduce both interest and principal burden for the restructured firms. As being an unflavored restructuring scheme, banks and creditors need to consider the future default or bankruptcy of the firms that may convey further losses to them.

- **Debt burden.** As being presented by the debt ratio, high debt burden firm normally faced with the high portion of long term debt to its asset. From the research result with the highest coefficient value, the high debt ratio firm has high chance to restructure their debt with debt to equity conversion scheme. This means debt to equity conversion is useful to loosen the substantially sustainable obligation to the restructuring firm from almost or partially shrinking the long term interest and debt burdens simultaneously.

- **Return in the future.** Banks and creditors may get returns from debt to equity conversions in both terms of dividend payments and capital gains. Debt to equity conversion not only reduce the firms' burdens but also improve the firms' net worth by developing their balance sheet. By doing so, such firms not only are able to pay dividend from clearing their accumulated losses, but also being able to be released from a suspended status and traded under the SET regulations again.

- **Governance of the firm.** Although the corporate governance, represented by percentages shareholding of owner manager and creditor, reflects very low coefficient values to the decision of debt to equity conversion, it is not negligible, as it directly and sensitively effects to the further consequence of the debt converting. Normally, after debt to equity conversion, banks and creditors become the major shareholders of the restructured firms. Banks and creditors need to consider at which percentage they will have an ability to direct the companies or at least to object any disagreed issue, or require a special resolution vote. On the other hand, too high percentage shareholdings may discourage the existing shareholders, who also are a part of the management of the firms, to continue running their business; as they have lost almost all of

their ownership. Sometimes, kick back share option is a solution for this problem, as the existing shareholders have incentives to run their businesses to reach the target measurements in order to get some portions of shares in return. However, banks and debtors still have to consider the level of debt to equity conversion for their debt restructuring.

- **Further benefits after restructuring.** Ineffective and fraud managements are the major concerns in this issue. Banks and creditors may need to consider the ability to exert the right of being shareholders of the firms. This allows banks and creditors to have close monitoring on the firms' operations and prevent any further default in case of fraud management; especially, when new money or new working capital facility provided to the companies.

7.4 Further Study

Exclusive to this study, the results or the consequences of debt to equity conversion, as a measure of debt restructuring, should be further investigated. To investigate the efficiency and effectiveness of debt to equity conversion, it needs to study the post restructuring situation of each successful restructuring case employing debt to equity conversion whether it contributes to the success or to the viability of firms and whether this restructuring scheme is appropriate for Thai businesses.

Additionally, the appropriate level of equity portion that banks should retain from debt to equity conversion is another interesting area. The critical level for banks to hold as an equity stake in the distressed firms should be further examined. Banks have to maintain their shareholdings to balance their roles of creditors and debtors, since inappropriate portion of equity taking will expose the opportunity cost and adversely effect banks.

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APPENDIX A

DEBT RESTRUCTURING REGIMES IN THAILAND

1. CDRAC CONTRACTUAL REGIME

1. CDRAC Background

On 2 June 1998, the Joint Public Private Consultative Committee adopted a resolution to establish CDRAC. BOT order no. 215/2541 of 25 June 1998 then announced CDRAC's establishment. CDRAC has the BOT Governor as chairman, an advisor to BOT as vice chairman, and the chairmen of the Thai Board of Trade, Federation of Thai Industries, Thai Bankers' Association, Association of Finance Companies and Foreign Banks' Association as members.

CDRAC determines policy to promote negotiation of debt restructuring between the private sector and financial institutions and administers generally such negotiations. It has the power to appoint sub-committees and may seek cooperation and authority from the BOT .

2. Framework

In August 1998, CDRAC and the Thai Board of Trade, the Federation of Thai Industries, the Thai Bankers' Association, the Association of Finance Companies and the Foreign Banks' Association approved the framework. It provided voluntary principles for non-judicial debt restructurings.

Important principles of the Framework included standstill and other covenants of creditors and debtors. These undertakings cover commitments of senior management and financial officers, disclosure of financial and other key information of the debtor and analysis of alternative restructuring strategies.

The framework also provided that existing security rights are maintained and that new financing must receive priority. Principles to apportion restructuring losses are likewise specified. In addition, the framework established a time schedule to achieve various actions in the process.

3. Inter-Creditor and Debtor-Creditor Agreements

On 19 March 1999, 63 Thai and foreign financial institutions signed the Inter-Creditor Agreement on Restructure Plan Votes and Executive Decision Panel Procedures ("ICA"). Additional financial institutions have signed the ICA subsequently.

This agreement established the basis on which financial institutions enter into a Debtor-Creditor Agreement on Debt Restructuring Process ("DCA") on a case-by-case basis with debtors, which agree to have their debts rescheduled on the basis of that agreement and the procedures in the Framework.

3.1) Inter-Creditor Agreement

The ICA limits creditor participants to financial institutions. Thus trade and other creditors cannot formally participate. Also, potential debtors initially were limited to the 667 corporate entities, which had been listed with CDRAC. Later, other corporate debtors were brought into the CDRAC regime.

The agreement sets forth a process to formulate a restructuring plan and to obtain "sufficient plan approval".

3.2) Debtor-Creditor Agreement

The DCA binds all creditors who adhere to the ICA and the debtor, which adheres to the DCA. Thus only financial institutions and their debts are covered by the DCA.

The DCA also provides for the appointment of a steering committee, for the debtor to provide information, and for the debtor not to take certain action without creditor approval.

4. Simplified Debtor-Creditor Agreement

In addition to ICA-DCA, on 23 April 1999, CDRAC approved the Simplified Debtor-Creditor Agreement as proposed by The Thai Banker's Association and the Association of Finance Companies. The objective of the Simplified Debtor-Creditor Agreement is to enlarge the coverage of efficient debt restructuring process to debtors in the whole system, particularly small and medium-sized debtors. The principles of the Simplified Debtor-Creditor Agreement can be summarized as follows :

The SA emphasized debt restructuring for small and medium-sized debtors which involves one creditor cases or bilateral negotiation in multiple creditors cases.

- The process clearly specifies the selection criteria for target debtors under debt restructuring process. The target debtors constitute of those proposed by both financial institution creditors and debtors who express intention to participate the scheme. After approved by CDRAC, the proposed target debtors who sign Debtor Access enter into the SA.
- The timeframe for debt restructuring process is clearly set at the maximum of 60 days, and can be extended for another 15 days in case of having a mediation process.
- In case of any dispute in debt restructuring, a mediator will be appointed from independent party to conduct mediation and make a recommendation on the debt restructuring.
- The privileges of entering into SA are the followings : 1) Debtors could continue their operation without having to worry about their troubled debts; 2) Debtors are exempted from being charged at default rate during debt restructuring; 3) Debtors who successfully restructure their debts and follow the Bank of Thailand's debt restructuring guidelines are entitled to tax and fee privileges.

A degree of confidentiality surrounds the CDRAC regime, and it is difficult to determine the progress being made on all targeted debtors, which include additional 5,010 small and medium sized target debtors under the Simplified Debt Restructuring Agreement.

2. BANKRUPTCY ACT REGIME

1. 1998 and 1999 Amendments

In April 1998 Bankruptcy Act Amendment (No. 4) came into force. It added a new Chapter 3/1 (Sections 90/1 through 90/90) to the original Bankruptcy Act of December 1940. This amendment establishes a judicial process for reorganization of debtors. It includes procedures for the appointment of a reorganization plan preparer ("planner"), approval of such a plan, appointment of the plan administrator and implementation of the plan.

Chapter 3/1 provides voting procedures for approval of the plan, the planner and the administrator, specifies the scope and content of a plan, requires the debtor to disclose certain information and to cooperate, provides that the administrator replaces the debtor's directors and shareholders during administration of the plan and allows for derogation from provisions of the Civil and Commercial Code and the Public Limited Companies Act. It also permits the establishment of creditors' committee to oversee plan administration.

Uncertainty over judicial administration of Chapter 3/1 generally limited this alternative to "prepackaged" consensual arrangements between creditors and debtors. The requirement of certain decisions by a "special resolution" of the creditors (simple majority in number and three-quarters majority in amount) and the potential inclusion of all, potentially numerous, creditors also disfavored the use of this alternative.

In April 1999 Bankruptcy Act Amendment (No. 5) came into force. The major changes effected by the 1999 amendments are discussed below.

(1) New Money

Section 94(2) now allows a creditor to file a claim for debts which it advanced, despite knowing that the debtor was insolvent, to allow the debtor to continue its business operations. This was intended to remove a substantial barrier to new money, due to the opposite treatment of such advances in the past.

(2) Creditor Classes and Voting

Sections 90/42, 90/42 (bis), 90/42 (ter) and 90/46 create classes of creditors, provide for equal treatment for creditors within each class, and prescribe revised voting procedures in approving a reorganization plan.

Each secured creditor with at least 15% of the total debt forms a separate class, and all other secured creditors form a class.Unsecured creditors are grouped according to similar interests (presumably, such as suppliers, subordinated lenders, bondholders, etc., although there is uncertainty as to the application of such classes and the principle of equality of treatment). Section 130 creditors (e.g., those owed taxes or wages) also form a class.

The previous voting by "special resolution" of all creditors has been replaced by a minimum voting requirement of such a resolution by any creditor class and one-half of all debt. This substantially facilitates creditor decisions.

Section 90/46 (bis) of the revised Act specifies creditors deemed to have accepted a reorganization plan. These include creditors that will be brought and kept current in debt service payments, those which will be repaid upon the implementation of the plan, and those which are privileged under Section 130 (see above).

(3) Preference Periods

Section 90/41 and 115 provide a preference period of three months for transactions between unrelated parties, and one year if the creditor is related to the debtor.

(4) Court Approval of Plans

Section 90/58 sets out the criteria that require a court to approve a reorganization plan. The plan must contain all the information specified in Section 90/42, which is considerable. Also, any disadvantageous treatment of a creditor or alteration of the legal ranking of its claims must have its consent.

Under a restructuring plan, all creditors must also receive no less than they would have if the debtor were declared bankrupt. If the requirements under Section 90/42 are not met, the court still has discretion to approve the plan. However, the court's prior discretion to reject a plan has been reduced.

(5) Rejection of Contracts

Section 90/41 (bis) allows the planner to refuse to accept a debtor's assets or rights under agreements if such assets or rights carry obligations greater than the benefits, which may be derived.

(6) Currency Conversion

Section 90/31 has been amended to specify that the conversion of debt denominated in a foreign currency is for voting purposes only. This removes the prior uncertainty as to whether conversion was mandatory for debt collection and other purposes.

The 1999 amendments also include less important amendments. The Central Bankruptcy Court ruled in the landmark TPI case on March 15, 2000 that "insolvency", a condition precedent to reorganization proceedings under the amended Bankruptcy Act, does not simply mean negative net worth but rather the debtor's inability to service their financial obligations. This ruling cleared a major legal uncertainty. It is believed that it will speed up the pace of debt restructuring cases, which will contribute to a fall in NPL levels.

2. New Bankruptcy Court

The Act on Establishment of and Procedure for Bankruptcy Court, B.E. 2542, was published in April 1999. This Act established the Bankruptcy Court as a specialized court, and sets forth rules governing its procedure. The court opened on June 18, 1999. It now has jurisdiction over all bankruptcy cases, which were formerly heard by the Court of First Instance. Appeals on reorganization cases will be made directly to the Supreme Court (instead of first to the Court of Appeals).

3. Additional Reforms

A number of problems have been experienced in the introduction of reorganization proceedings, and amendments have been proposed to address these problems.

3. AD-HOC ARRANGEMENTS AND OTHER ALTERNATIVES

Informal contract negotiations between creditor groups and their debtors have often been thwarted by a variety of factors. Important among them is the long enforcement procedure, with regard to both unsecured and secured creditors. Thus, creditors have been reluctant to pursue debtors in the courts.

Recent developments should, however, facilitate the enforcement of a creditor's claims against its debtor. These include the establishment of the IPIT Court in 1997 and the Bankruptcy Court in 1999, and amendments to the Civil Procedure Code in 1999.

1. IPIT Court

The IPIT Court was established pursuant to a law in October 1996, and opened in December 1997. The jurisdiction of the court is broad and includes civil claims relating to financial instruments and international services. The Chief Justice of the Supreme Court has held that lending is a service. The IPIT Court thus has jurisdiction over claims brought by foreign

lenders against their domestic borrowers. That court also has jurisdiction over the enforcement of security, which relates to such claims.

Cases before the court are heard by at least two judges and one associated judge. The court judges are judicial officials, while the associate judges are not, but the latter must meet certain qualifications, notably with regard to knowledge and expertise in such matters. An individual judge may also take actions or issue orders relating to a court proceeding, while the court's decision on a case is by majority of the judges.

Rules regarding evidence in the court are more flexible than those in the civil courts. Also, the court is to hold hearings on a continuous basis, without postponements, until completed. Thus these court proceedings are more rapid than proceedings in the civil courts. Also, an appeal from a decision of the IPIT court is directly to the Supreme Court, rather than to the Court of Appeals. As a result, the entire procedure should be expedited.

Notwithstanding the potential use of the IPIT Court, complications relating to enforcement of security, notably mortgages of real property and of registered machinery and the pledge of physical property and shares remain. These include the practical impossibility of disposing of an industrial unit to one potential buyer, because of the separate procedures required to realize and enforce a mortgage of real property, a mortgage of machinery and a pledge of assets. It is also difficult to exercise step-in-rights or to perfect conditional assignments of contract rights, notably because some licenses and permits are not transferable, and they require the holder to fulfill certain requirements.

An order by the Bankruptcy Court accepting the filing of a Section 90 Bankruptcy Act request for restructuring plan stays all other completing procedures under Section 90/12 of the Act. Those procedures would include enforcement measures and interim orders of the IPIT Court or a general civil court.

2. Economic Reform Legislation

Progress has been made in enactment of new legislation to speed up court and enforcement procedures:

4. COMPARISON OF CDRAC, BANKRUPTCY ACT AND AD HOC ELEMENTS

1. Binding Nature

The contractual framework relates only to financial institutions. Thus the process imposes contractual obligations only on financial institution creditors to encourage them to reconcile differences among themselves and between themselves and the debtor. CDRAC creditors may opt out of the process only if the debtor's financial institution debt exceeds one billion Baht and if the arbitration process under the ICA becomes applicable.

In contrast, a Chapter 3/1 Bankruptcy Act procedure legally binds all creditors, whether financial institutions or not, without the possibility of opting out. Under section 90/12, secured creditors may not be allowed to enforce rights for so long as the plan is in place, or they may be subject to discretionary acts of the court under sections 90/13 and 90/14.

For ad-hoc procedures, consensus on a restructuring arrangement contractually binds only the agreeing creditors and their debtor.

2. Voting Rights

Under the CDRAC regime, "sufficient plan approval" requires a "special resolution" under section 6 of the Bankruptcy Act, i.e., a majority of all creditors and three-fourths of all debts. The ICA does qualify the reference to a special resolution by the phase "as amended (or any amended or succeeding definition...)". This would appear intended to adopt the less stringent requirement under revised section 90/46 of the Bankruptcy Act. However, the section 6 definition has not been superceded for purposes of the agreement.

3. Exclusivity or Combination

The CDRAC regime and the Chapter 3/1 Bankruptcy Act regime could each be conducted separately and exclusively. It would also be possible to begin under the contractual framework and, upon agreement being reached between the financial institution creditors and the debtor, for the restructuring plan to be imposed upon all creditors by a Section 90 proceeding, if the required majorities under section 90/42 bis can be obtained. In that event, all creditors would be bound.

4. Tax Implications

Debt restructuring poses a number of tax, accounting and registration issues. During the past year, the Revenue Department and other regulatory agencies have announced numerous measures to facilitate restructuring. These measures are beyond the scope of this paper. They address subjects including income tax, transfer fees, VAT, accounting standards, etc. Their applicability often depends upon the type of restructuring regime and classification of creditor.

5. TAMC REGIME

1. TAMC Background

The Committee on the Supervision and Management of Financial Institutions' NPLs had reviewed the result of the study by the Working Committee on the Establishment of Central Asset Management Organization and used the conclusive information for drafting the Emergency Decree on the Thai Asset Management Corporation B.E. 2544. The laws was then passed by the Finance Minister to Director of Committee on Laws Improvement for Country Development and its Working Committee, in which officer from the Council of State acted as secretary, for further improvement before presenting it to the Cabinet for their consideration. In this connection, the Emergency Decree on the Thai Asset Management Corporation B.E. 2544 was announced in the Royal Gazette and became effective on 9 June 2001.

2. Details of Financial Institutions

Setout below is the names of commercial banks and financial institutions, who have to transfer their non-performing assets to be managed by TAMC

Commercial Banks

Private Banks

1. Bangkok Bank Pcl.
2. Bank of Ayudhya Pcl.
3. Thai Farmer Bank Pcl.
4. DBS Thai Danu Bank Pcl.
5. Siam Commercial Bank Pcl.
6. Thai Military Bank Pcl.
7. Bank of Asia Pcl.

Public Banks

1. KrungThai Bank Pcl.
2. Bank Thai Pcl.
3. Siam City Bank Pcl.
4. Bangkok Metropolitan Bank Pcl.

Financial Institutions

Private Financial Institutions

1. BTM Finance Company Limited.
2. Ayudhya Investment and Trust Pcl.
3. GE Asia Finance Pcl.
4. National Finance Pcl.
5. AMERICAN EXPRESS FINANCE (THAILAND)
   (Old names - BOA Finance , ASEC FINANCE AND SECURITIES CO., LTD.)
6. AIG Finance (Thailand) Company Limited.

7. The Book Club Finance Pcl.
8. Siam Industrial Credit Pcl.
9. Asia Credit Plc.
10. Ekachart Finance Pcl.

Public Financial Institutions

1. KrungThai Thanakit Finance Pcl.

Asset Management Companies

Private Companies

1. Phayathai Assets Management Co.,Ltd.
2. Chatuchak Assets Management Co.,Ltd.
3. NFS Assets Management Co.,Ltd.

Public Companies

1. Petchburi Assets Management Co.,Ltd. (PAMC)
2. Radanasin Assets Management Co.,Ltd.
3. Sukhumvit Assets Management Co.,Ltd.
4. Bangkok Commercial Assets Management Co.,Ltd.

Source : Chandler and Thong-Ek Law Offices Limited, available on http://www.ctlor.com /drrt.html
: CDRAC, The bank of Thailand, available on http://www.bot.or.th
TAMC, Thai Asset Management Corporation, available on http://www.tamc.go.th

APPENDIX B

REGULATIONS RELATING TO DEBT-EQUITY SWAP

1. Commercial Banking Act B.E. 2505

Section 12 (5) : Limit of shareholding in limited and public company

"No commercial bank shall purchase or hold shares of any limited company (including public company limited) in an amount exceeding 10 percent of the total amount of such company's shares sold or purchased or hold shares or debentures at an aggregate value, separately or in combination, exceeding 20 percent of the capital funds of the commercial bank, unless authorized by the Bank of Thailand. Such authorization may be given with any conditions."

2. Public Limited Companies Act B.E. 2535

Under the Public Limited Companies Act B.E. 2535, there are several regulations relating to the implementation of debt-equity swap, which can be summarized below:

Chapter 4 / Section 31 : Amendment to memorandum and articles of association

"...The company may amend its memorandum of association or articles of association only when a resolution therefor has been passed at the shareholder meeting by not less than three quarters of the total number of votes of shareholders attending the meeting and having the right to vote..."

Chapter 5 / Section 54 : Payment for shares

"... In making payment for shares, a subscriber or purchaser shall not offset any debts with the company."

Chapter 10 / Section 136 (2) : Procedures for increase in capital

"The company may increase the amount of its registered capital by the issuance of new shares, which ...(2) the shareholder meeting has passed a resolution by not less than three quarters of the total number of votes of the shareholders attending the meeting and having the right to vote; and ..."

Chapter 10 / Section 139 : Procedures for reduction in capital

"The company may reduce the amount of its registered capital by either lowering the par value of each share or by reducing the number of shares. However, the capital of the company shall not be reduced to less than one quarter of its original total amount.

The reduction stated under the first paragraph to any amount and by any method may be made upon a resolution passed at the shareholder meeting by a vote of not less than three quarters of the total number of votes of the shareholders attending the meeting and having the right to vote, ..."