

AN EMPIRICAL ANALYSIS OF DEBT-EQUITY  
CHOICE IN INDONESIAN COMPANIES

by:

AUGUSTINUS SETIAWAN SANTOSO

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## TABLE OF CONTENTS

<b>Title Page</b>	i
<b>Acknowledgement</b>	ii
<b>Table of Contents</b>	iv
<b>List of Tables</b>	ix
<b>List of Figures</b>	xv
<b>Abstract</b>	xvi
<b>Abstrak</b>	xvii

### CHAPTER 1 INTRODUCTION

1.1 Background of the Study	1
1.1.1 Indonesian Financial Phenomenon	2
1.1.2 Methodology Issues	4
1.2 Research Questions	5
1.3 Objective of the Study	6
1.4 Contributions of the Study	6
1.5 Outline of the Thesis	8

### CHAPTER 2 THE LEVEL OF DEBT, OWNERSHIP STRUCTURE, CONTROL AND MONITORING OF INDONESIAN COMPANIES

2.1 Introduction	9
2.2 Description of Debt-Equity Choice in Indonesian Companies	9
2.2.1 Indonesian Companies Debt	9
2.2.2 Financial Performance of Indonesian Companies	11
2.3 Ownership Structure, Control and Monitoring in Indonesia Companies	11

2.3.1	Ownership Structure on Indonesian Companies	11
2.3.2	Control and Monitoring of Indonesian Companies	15
2.4	The Legal Framework for Investor Protection in Indonesia	21
2.4.1	Creditor's Rights	22
2.4.2	Shareholder's Rights	25
2.5	Discussion of the Link between the Level of Debt, Control and Monitoring of Indonesian Companies	28
2.6	Summary of the Chapter	29

### **CHAPTER 3 LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

3.1	Introduction	30
3.2	Debt and Equity Choice	32
3.2.1	Debt versus Equity	32
3.2.2	Capital Structure Models	33
3.2.2.1	Overview of Trade-off theory	34
3.2.2.2	Overview of Pecking Order Theory	35
3.3	The Ownership Structure and Debt-Equity Choice in Agency Problem Framework	36
3.3.1	Overview of The Ownership Structure	36
3.3.1.1	External Block Ownership	37
3.3.1.2	Managerial Block Ownership	38
3.3.2	Overview of The Principal – Agency Problem	41
3.3.2.1	Debtholders and Shareholders Conflicts	42
3.3.2.2	Shareholders and Managers Conflicts	44
3.4	Overview of Law and Finance	46

3.5	Relevance of the Theory to Indonesian Companies	47
3.6	The Jointly Determination among Debt-Equity Choice, Ownership Structure, and Firm Performance	49
3.7	The Determinant of Debt-Equity Choice	50
3.8	Models and Hypotheses Development	58
3.8.1	Model I: Debt-Equity Choice Equation	59
3.8.1.1	Trade-off Theory and Pecking Order Theory	60
3.8.1.2	The Link Between Debt-Equity Choice and Ownership Structure	61
3.8.1.3	The Link Between Debt-Equity Choice and Agency Problem	63
3.8.2	Model II: Ownership Structure Equation	65
3.8.3	Model III: Firm Performance Equation	66
3.9	Summary of the Chapter	67

## **CHAPTER 4 METHODOLOGY**

4.1	Introduction	75
4.2	Research Framework	75
4.3	Sample Selection	77
4.4	Variable Measurement	81
4.5	Econometric Issues and Analysis	82
4.5.1	Identification Test	82
4.5.2	Descriptive Data	86
4.5.3	Wu-Hausman Test for Endogeneity	87
4.5.4	Residual Test of Two Stage Least Squares	88

4.5.5	Wu-Hausman Test for Simultaneity	89
4.6	Statistical Findings	89
4.6.1	Diagnostic Test	90
4.7	The Fit Model	92
4.7.1	Coefficient of Determination (R-Squared)	92
4.7.2	Adjusted R-Squared	92
4.7.3	Wald Test – F Test	94
4.8	Joint Coefficient Test	94
4.9	Summary of the Chapter	96

## **CHAPTER 5 DEBT-EQUITY CHOICE IN INDONESIAN COMPANIES BEFORE AND DURING THE CRISIS**

5.1	Introduction	107
5.2	Empirical Evidence of Debt-Equity Choice	107
5.3	Discussion of Debt-Equity Choice in Indonesian Companies	113
5.4	Summary of the Chapter	119

## **CHAPTER 6 DEBT-EQUITY CHOICE AND ITS CONSEQUENCES ON AGENCY PROBLEMS**

6.1	Introduction	121
6.2	Empirical Evidence of the Link between Debt-Equity Choice and Ownership Structure.	122
6.4	Empirical Evidence of Shareholders and Debtholders Conflict.	124
6.5	Discussion of Agency Problem in Indonesian Companies	128
6.6	Summary of the Chapter	130

**CHAPTER 7 JOINT DETERMINATION AMONG THE LEVEL OF DEBT,  
MANAGERIAL OWNERSHIP, AND FIRM PERFORMANCE**

7.1	Introduction	131
7.2	The Link between Ownership Structure and the Level of Firm Debt	132
7.3	The Link between Firm Performance and the Ownership Structure	133
7.4	The Relation between Firm Performance and the Firm Debt and Firm Risk	135
7.5	Discussion of the Link among Debt-Equity Choice, Ownership Structure and Firm Performance	137
7.6	Summary of the Chapter	149

**CHAPTER 8 CONCLUSION**

8.1	Overall Conclusion	151
8.2	Suggestion for the Future	153
8.2.1	Suggestion on Methodology and Theory	153
8.2.2	Suggestion on Implications	155
8.3	Scope and Limitation of the Study	156

REFERENCES	157
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Appendix A	174
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Appendix B	194
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List of Publication	241
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## LIST OF TABLES

Table	No.	Title of Table	Page
Table	1.1	Debt-Equity Ratio and Firm Performance of Indonesian Companies, 1993 – 1997 (percent)	2
Table	1.2	Ownership Concentration of Indonesian Companies, 1993 – 1997 (percent)	3
Table	2.1	Financing Patterns of Indonesian Companies from 1993 to 2000 (ratio)	10
Table	2.2	Financing Performance of Indonesian Companies from 1993 to 2000 (percent)	12
Table	2.3	Five Types of Control	16
Table	2.4	Summary Type of Control of 75 Indonesian Companies Before the Crisis (The Largest Shareholder)	17
Table	2.5	Summary Type of Control of 75 Indonesian Companies During the Crisis (The Largest Shareholder)	18
Table	2.6	Summary of Ownership Composition from 1993 to 1996	20
Table	2.7	Summary of Ownership Composition from 1997 to 2000	21
Table	2.8	Summary of Evaluation of Processes for Debt Recovery	24
Table	2.9	The Comparison of Ownership Concentration and Financial Leverage between Indonesia and Malaysia	29
Table	3.1	Theories and Hypotheses which Relevant to Indonesian Condition in Debt-Equity Choice	48
Table	3.2	Summary of Selected Previous Studies	69

Table 3.3	A Review of the Use of Simultaneous Equations in Selected Previous Studies	73
Table 4.1	Sample Data	78
Table 4.2	Variable Measurement	81
Table 4.3	Matrix Identification	83
Table 4.4	Descriptive Statistics of Main Variables	86
Table 4.5	Summary of Fit Model	93
Table 4.6	Joint Coefficient Test of Debt-Equity Equation	95
Table 4.7	Joint Coefficient Test of Ownership Structure Equation	96
Table 4.8	Joint Coefficient Test of Firm Performance Equation	96
Table 4.9	Summary of Statistical Findings of Debt-Equity Equation	97
Table 4.10	Summary of Statistical Findings of Ownership Structure Equation	98
Table 4.11	Summary of Statistic Findings of Firm Performance Equation	99
Table 4.12	Statistical Findings of Simultaneous Equation Regression (Largest Shareholder)	101
Table 4.13	Statistical Findings of Simultaneous Equation Regression (Top Five Shareholders)	103
Table 4.14	Statistical Findings of Simultaneous Equation Regression (Overall Period - Largest Shareholder)	105
Table 4.15	Statistical Findings of Simultaneous Equation Regression (Overall Period - Top Five Shareholders)	106
Table 5.1	Summary of Statistical Finding	114
Table 6.1	The Mean of Tobin's Q and Debt Ratio of Indonesian Companies 1993 – 2000	126

Table 6.2	Summary of Statistical Finding	129
Table 7.1	Summary of Statistical Finding	139
Table 7.2	The Organizational Structure and Ownership Structure of the Nursalim Group (1996)	143

#### **Appendix A Financial Analysis of Indonesian Companies**

Table A.1	Financial Performance of Indonesian Companies by Sector 1993 – 2000 Total Debt / Total Assets	175
Table A.2	Financial Performance of Indonesian Companies by Sector 1993 – 2000 Total Debt / Total Equity	176
Table A.3	Financial Performance of Indonesian Companies by Sector 1993 – 2000 Tobin's Q	177
Table A.4	Financial Performance of Indonesian Companies by Sector 1993 – 2000 Return on Assets	178
Table A.5	Ownership Structure of Indonesian Companies by Sector 1993 – 2000 Managerial Block Ownership	179
Table A.6	Ownership Structure of Indonesian Companies by Sector 1993 – 2000. Shareholder – Largest Shareholder	180
Table A.7	Ownership Structure of Indonesian Companies by Sector 1993 – 2000. Ownership Concentration – Top Five Shareholders	181
Table A.8	Ownership Composition of Indonesian Companies by Sector 1993 – 1994	182
Table A.9	Ownership Composition of Indonesian Companies by Sector 1995 – 1996	183

Table A.10	Ownership Composition of Indonesian Companies by Sector 1997 – 1998	184
Table A.11	Ownership Composition of Indonesian Companies by Sector 1999 – 2000	185
Table A.12	Indonesian Shareholder Rights	186
Table A.13	Indonesian Creditor Rights	187
Table A.14	Types of Control of 75 Indonesian Companies from 1993 to 1996	188
Table A.15	Types of Control of 75 Indonesian Companies from 1997 to 2000	191

#### **Appendix B Statistical Analysis**

Table B.1	Test of Differences	195
Table B.2	The Wu-Hausman Specification Test for Endogeneity (Before the Crisis – Largest Shareholder)	196
Table B.3	The Wu-Hausman Specification Test for Endogeneity (Before the Crisis – Top Five Shareholders)	198
Table B.4	The Wu-Hausman Specification Test for Endogeneity (During the Crisis – Largest Shareholder)	200
Table B.5	The Wu-Hausman Specification Test for Endogeneity (During the Crisis – Top Five Shareholders)	202
Table B.6	The Wu-Hausman Specification Test for Endogeneity (Overall Period – Largest Shareholder)	204
Table B.7	The Wu-Hausman Specification Test for Endogeneity (Overall Period – Top Five Shareholders)	206

Table B.8	Correlation Matrix of 2SLS Residual. Largest Shareholder - Before the Crisis.	208
Table B.9	Correlation Matrix of 2SLS Residual. Top Five Shareholders - Before the Crisis.	208
Table B.10	Correlation Matrix of 2SLS Residual. Largest Shareholder - During the Crisis.	209
Table B.11	Correlation Matrix of 2SLS Residual. Five Shareholders - During the Crisis.	209
Table B.12	Correlation Matrix of 2SLS Residual. Largest Shareholder – Overall Period	210
Table B.13	Correlation Matrix of 2SLS Residual. Top Five Shareholders - Overall Period	210
Table B.14	The Wu-Hausman Specification Test for Simultaneity (Before the Crisis – Largest Shareholder)	211
Table B.15	The Wu-Hausman Specification Test for Simultaneity (Before the Crisis – Top Five Shareholders)	213
Table B.16	The Wu-Hausman Specification Test for Simultaneity (During the Crisis – Largest Shareholder)	215
Table B.17	The Wu-Hausman Specification Test for Simultaneity (During the Crisis – Top Five Shareholders)	217
Table B.18	The Wu-Hausman Specification Test for Simultaneity (Overall Period – Largest Shareholder)	219
Table B.19	The Wu-Hausman Specification Test for Simultaneity (Overall Period – Top Five Shareholders)	221

Table B.20	Three Stage Least Squares Findings - Before the Crisis – Largest Shareholder	223
Table B.21	Seemingly Unrelated Regression Findings - Before the Crisis – Largest Shareholder	225
Table B.22	Three Stage Least Squares Findings - Before the Crisis – Top Five Shareholders	227
Table B.23	Seemingly Unrelated Regression Findings - Before the Crisis – Top Five Shareholders	229
Table B.24	Three Stage Least Squares Findings - During the Crisis – Largest Shareholder	231
Table B.25	Three Stage Least Squares Findings - During the Crisis – Top Five Shareholders	233
Table B.26	Three Stage Least Squares Findings - the Overall Period – Largest Shareholder	235
Table B.27	Three Stage Least Squares Findings - the Overall Period – Top Five Shareholders	237
Table B.28	Normality Test	239
Table B.29	Correlation Matrix	240

## LIST OF FIGURES

Figure No	Title of Figure	Page
Figure 2.1	Ownership concentration of Indonesian companies before and during the crisis	15
Figure 3.1	Debt versus equity	32
Figure 3.2	Summary of the joint determination between debt-equity choice, ownership structure, and firm performance	49
Figure 3.3	The link between the level of debt and Tobin's Q as a proxy of growth opportunity	53
Figure 3.4	The link between the level of debt and profitability	57
Figure 3.5	The link between firm debt and managerial block ownership	62
Figure 4.1	Research road map	84
Figure 5.1	The Link between the level of debt and profitability during the crisis	112
Figure 6.1	The relationship between firm debt and Tobin's Q before the crisis	127
Figure 7.1	The link between Tobin's Q and earning volatility during the crisis	137
Figure 7.2	The Ownership Structure of the Nursalim Group in Indonesia	141
Figure 7.3A	The Link Between Soeharto Family and Their Business	147
Figure 7.3B	The Link Between Soeharto Family and Their Business	148

## Abstract

This study offers new insights by employing Indonesian data. The uniqueness of Indonesian companies is reflected by the common occurrence of ownership concentration among a few large families and affiliation with a corporate group in which seems nonexistent in many developed countries. With regard to the methodology problem, this study uses simultaneous equations model to overcome the endogeneity problem in debt-equity study. It is reported that the external block ownership has dominant position by having majority control and impact on powerless Indonesian managers. The inadequate legal framework for investors' protection, insufficient internal financing and improper development of the capital market occur. With regard to this situation, debt-equity choice was widely practiced. There is evidence that Indonesian companies relied heavily on loans to finance unrealistic rapid corporate expansion. The insignificant relationship between the level of debt and tangibility of assets and profitability indicate the appearance of moral hazard problem before the crisis. This study points out that the dominant external block ownership can have a detrimental effect on the shareholders and debtholders relation. It induces the higher cost of debt which is typically described in forms of asset substitution or risk shifting problem. As a result, severe agency conflict occurs is not between shareholders and managers as often assumed in the previous studies but between shareholders and debtholders.



# Analisis Empirikal Tentang Pilihan Hutang-Ekuiti Bagi Syarikat-Syarikat di

## Indonesia

### Abstrak

Kajian ini menyumbangkan pengetahuan yang baru dengan menggunakan data dari Indonesia. Khususnya, pilihan di antara hutang dan ekuiti oleh firma Indonesia berbeza daripada negara maju. Ini terbukti di dalam konsentrasi pemilikan di antara beberapa keluarga terpengaruh dan perhubungan di antara sesuatu kumpulan syarikat yang tidak berlaku di negara maju. Berhubung dengan masalah metodologi, kajian ini menggunakan model persamaan serentak untuk mengatasi masalah endogeneiti yang timbul di dalam setengah kajian ke atas hutang-ekuiti yang lepas. Ia dilaporkan bahawa pemilikan luaran secara blok mempunyai kedudukan yang dominan secara kawalan majority dan ini mempengaruhi pengurus Indonesia supaya menjadi tidak berwibawa. Undang-undang yang tidak lengkap bagi mempertahankan hak pelabur, kekurangan kewangan dalaman dan pasaran saham yang mentah juga berlaku. Berhubung dengan keadaan ini, pilihan hutang-ekuiti diamalkan. Terdapat bukti bahawa syarikat di Indonesia bergantung kuat ke atas pinjaman untuk membiayai perkembangan corporate pesat dan tidak realistik. Perhubungan yang tidak signifikan di antara tahap hutang dan ketaraan aset dan pendapatan membuktikan kemunculan masalah "*moral hazard*". Kajian ini membuktikan bahawa pemilikan luaran secara blok boleh mempunyai kesan negative ke atas perhubungan di antara pemegang saham dan pemberi hutang. Ia mengakibatkan kos hutang yang lebih tinggi yang sering disebutkan di dalam bentuk masalah penggantian aset atau pemindahan risiko. Oleh sebab ini, masalah agensi yang serius di Indonesia berlaku bukan di antara pemegang saham dan pengurus seperti yang diandaikan di negara yang maju tetapi di dalam bentuk di antara pemegang saham dan pemberi hutang.

## CHAPTER 1

### INTRODUCTION

#### 1.1 Background of the Study

Debt-equity choice is one of the most important decisions in financing policy. The impact of a faulty financing decision on a company could be disastrous as was experienced by many South East Asian companies in the 1997 financial crisis. Many companies were on the verge of collapsing when the economy changed overnight during the crisis (Kim & Mark, 1999). There is an interesting financial phenomenon in Indonesian companies with respect to debt-equity choice as reflected by the high level of debt and high ownership concentration.

A number of previous studies on debt-equity choice have assumed firm debt as an endogenous variable which in turn is determined by several exogenous variables (e.g. Homaifar, Zietz, & Benkato, 1994; Rajan & Zingales, 1995; Titman & Wessels, 1988). A majority of empirical studies employ a model in which the level of debt is regressed on a list of explanatory variables by assuming that  $Fd = f(Xi)$ , where:  $Fd$  is a measurement of firm debt, and  $Xi$  is a vector of explanatory variables (Prasad, Green, & Murinde, 2001).

Prior studies also argued that ownership structure is a function of the level of debt and other firm's variables. These two variables, namely the level of debt, firm performance and the ownership structure were used interchangeably as a dependent and an independent variable (Setiawan & Taib, 2002b). This is known as endogeneity problem or jointly determined problem under the econometric point of view (Greene, 2000; Gujarati, 2003).

Studies on capital structure have made great contributions in understanding the behaviour of firms with respect to their choice among the use of debt or equity.

Despite the merits, debt-equity study should be understood critically on the real issues in developing countries namely Indonesian companies which are suffering from high level of debt and ownership concentration. It should also address to the relevant econometric viewpoint such as endogeneity problem.

### 1.1.1 Financial Phenomenon of Indonesian Companies

Most Indonesian public listed companies (henceforth Indonesian companies) have been substantially financed by credit. As shown in Table 1.1, the debt-equity ratio increased from 240.0 in 1993 to 310.0 in 1997 (Husnan, 2001). It indicates that the higher debt correlate with the lower return on assets. Similar findings were reported in other studies by Claessens, Djankov, and Nenova (2000a), Zhuang, Edwards, Webb, and Capulong (2000).

*Table 1.1*

**Debt to Equity and Firm Performance of Indonesian Companies, 1993 - 1997**  
(percent)

Indicators	1993	1994	1995	1996	1997
Debt-to-Equity	240.0	220.0	220.0	230.0	310.0
Return on Equity	12.5	12.0	11.3	10.7	1.1
Return on Assets	3.5	3.5	3.5	3.2	0.6

Source: Husnan (2001).

Concerning ownership structure, empirical evidence show that Indonesian companies are characterised by high ownership concentration as reflected by Table 1.2. Other studies which employed Indonesian data also reported similar finding (Claessens, Djankov & Lang, 1999a; La Porta, Silanes & Shleifer, 1998a; Taridi, 1999; Zhuang et al., 2000). High ownership concentration has been regarded as one of

the factors that lead to excessive borrowing behaviour. This in turn can affect companies' performance negatively (Supratikno, 2000).

A few previous studies of Indonesian companies for examples, Husnan (2001) and Taridi (1999) have investigated corporate governance issues in Indonesia. These studies indicate that Indonesian companies were suffering from high level of debt and ownership concentration. However, the possibilities of the existence of moral hazard problem in debt-equity choice were not examined in these studies. Furthermore, prior studies only provided descriptive explanation with respect to the association between ownership structure and moral hazard problems (Kwik, 1994, 1996; Wibisono, 1998).

*Table 1.2*

**Ownership Concentration of Indonesian Companies, 1993 - 1997 (percent)**

Shareholder Rank	1993	1994	1995	1996	1997	Average
Largest	50.5	48.1	47.9	48.5	48.2	48.6
Second Largest	16.6	13.7	14.1	12.0	11.6	13.6
Third Largest	3.0	3.9	4.0	4.2	4.4	3.9
Fourth Largest	2.1	2.0	1.9	1.8	2.1	2.0
Fifth Largest	0.5	0.6	0.8	1.0	1.2	0.8
<b>Total</b>	<b>72.7</b>	<b>68.3</b>	<b>68.7</b>	<b>67.5</b>	<b>67.5</b>	<b>68.9</b>

Source: Husnan (2001).

These financial phenomena can be explained using agency theory due to the problem may originate from the powerless managers in determining debt and equity to finance the investment. Regarding risk aversion assumption (Jensen & Meckling, 1976), when ownership concentration gets bigger, it is possible that moral hazard behaviour occurs with shareholders shifting their risks to debtholders.

It is widely accepted that debt-equity choice is related to ownership structure (Brailsford, Oliver, & Pua, 1999; Chen & Steiner, 1999; Cho, 1998; Xu & Wang,

1997). To date, there has been no study looking at the relationship between debt-equity choice and ownership structure, and how it affects the moral hazard problem of Indonesian companies. Therefore, this study is going to investigate the interdependency among debt-equity choice, ownership structure and firm performance. Apart from highlighting how Indonesian companies choose debt or equity in financing their investment, it also intends to provide further enlightenment in relation to financial behaviour, namely moral hazard problem.

### **1.1.2 Methodology Issues**

Generally, debt-equity study is associated with three constructs i.e. the level of firm debt itself, ownership structure, and firm performance. However, previous studies basically take the relationships among these constructs in isolation. Jensen and Smith (1985), and Jensen and Warner (1988) conducted prior work that paid attention to the links between ownership structure and control.

A study which discussed the link between corporate strategy and capital structure is conducted by Barton and Gordon (1988). Prasad, Bruton and Merikas (1997) examined long-run strategic capital structure and argued that if capital structure can be identified, a firm could maximize its value by reaching and maintaining its financial mix. Meanwhile, Kochhar (1997) studied the relationship among strategic assets, capital structure, and firm performance.

Brailsford et al. (1999) focused on the link between ownership structure and debt-equity choice. Ang, Rebel and James (2000), de Jong (1999, 2000) and Jensen and Meckling (1976) conducted the study which concentrated on the relationship between debt-equity choice and the agency problem.

There are several notable studies on the determinant of debt-equity choice such as Banerjee, Hesmati, and Wihlborg (1999); Berger, Ofek, and Yermack (1997), Homaifar et al. (1994) and Kester (1986). Studies on the link between investor protection, ownership concentration and the level of debt were conducted by La Porta, Silanes, Shleifer, and Vishny (1997) and La Porta et al. (1998a).

Generally, previous studies used a straightforward regression in analyzing determinants of debt-equity choice. Firm debt is normally assumed to be a dependent variable in most studies, some examples of studies are those of Agrawal and Mandelker (1987); Brailsford et al. (1999); Friend and Lang (1988); Kim and Sorensen (1986); McConnell and Servaes (1995); Moh'd, Perry, and Rimbey (1998); Rajan and Zingales (1995); Titman and Wessels (1988).

A few studies have argued that ownership structure is a function of the level of debt and other firm's variables (McConnell & Servaes, 1990; Morck, Shleifer, & Vishny, 1988). In other words, the level of firm debt has been used interchangeably either as a dependent or an independent variable in previous studies.

Hence, there is a good reason to believe that if the level of firm debt, the ownership structure, as well as the firm performance have been jointly determined, it is necessary to look at these variables simultaneously.

## 1.2 Research Questions

Indonesia is a developing country with high use of debt and is among the highest ownership concentration in the world (Zhuang et al, 2000). It is interesting to see how these unique feature of Indonesian market influence the companies' choice of debt and equity:

1. How do Indonesian companies finance their investment?

2. Which block of ownership has prominent role in debt-equity choice? What agency problem might occur in relation to the role of the dominant block in debt-equity?
3. What is the nature of the link between ownership structure and control related to debt-equity choice?
4. How do ownership structure and the level of firm debt have an impact on firm performance?

### **1.3 Objective of the Study**

This study tries to examine the Indonesian financial phenomenon particularly in debt-equity choice such as: (i) whether the debt-equity choice is related to ownership structure. The ownership of the Indonesian companies was concentrated among a few large families as opposed to companies in developed countries where ownership structure is more dispersed; (ii) whether the affiliation with a corporate group has impact to debt-equity choice. The affiliation with a corporate group which widely practised in Indonesian companies, as for this phenomenon does not exist in many developed countries (see also Claessens, Djankov, & Lang, 2000c).

### **1.4 Contributions of the Study**

Building on well-known capital structure theories and principal agency model, this study attempts to provide some contributions to this field by comparing the findings before, during the crisis, and in the overall period. It also provides new insights by paying attention to the curvilinear relationship among firm debt, ownership structure, and firm performance in an integrated link.

The application of agency theory will give clear explanations about moral hazard problem which might occur related to how firms in Indonesia prefer debt or

equity to finance their investment. Specifically, these contributions are taken in the form of:

1. Documenting descriptively financial pattern, ownership concentration and ownership composition of Indonesian companies, and examine it by presenting the type of control and monitoring of Indonesian companies. With regard to ownership concentration, this study has two proxies, namely the largest external block ownership shareholder (henceforth the largest shareholder) and the top five external block ownership shareholders (henceforth top five shareholders).
2. It offers new evidence of moral hazard behaviour when there are sufficient condition for the problem to occur for instance, high ownership concentration and insufficient legal framework for investors' protection. It contributes in the following ways:
  - 2.1. Examining the debt-equity choice of Indonesian companies before and during the crisis.
  - 2.2. This study would seek answer as to why Indonesian companies prefer debt to equity.
  - 2.3. This study re-examines debt-equity choice where high ownership concentration occurred.
  - 2.4. This study re-examines the agency problem encountered by Indonesian companies.
3. Contributing methodologically by using simultaneous multiple equations. Besides having its advantages, it offers a series of tests provide method which has adequate result.