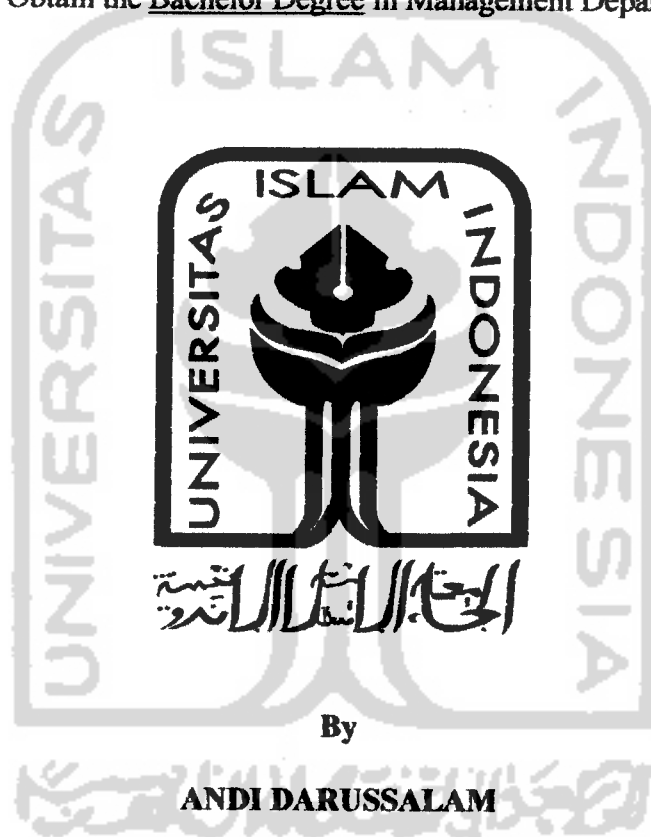


**THE EFFECT OF ASYMMETRIC INFORMATION ON CAPITAL
STRUCTURE OF LISTED INDONESIAN LQ 45 COMPANIES
FOR THE PERIOD 2003-2005**

A THESIS

Presented as a Partial Fulfillment of the Requirements
To Obtain the Bachelor Degree in Management Department



By

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**DEPARTMENT OF MANAGEMENT
INTERNATIONAL PROGRAM
FACULTY OF ECONOMICS
ISLAMIC UNIVERSITY OF INDONESIA
YOGYAKARTA
2007**

A Thesis

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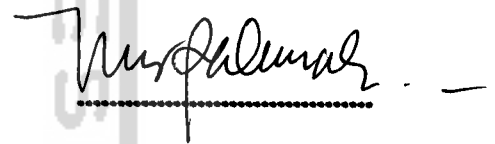
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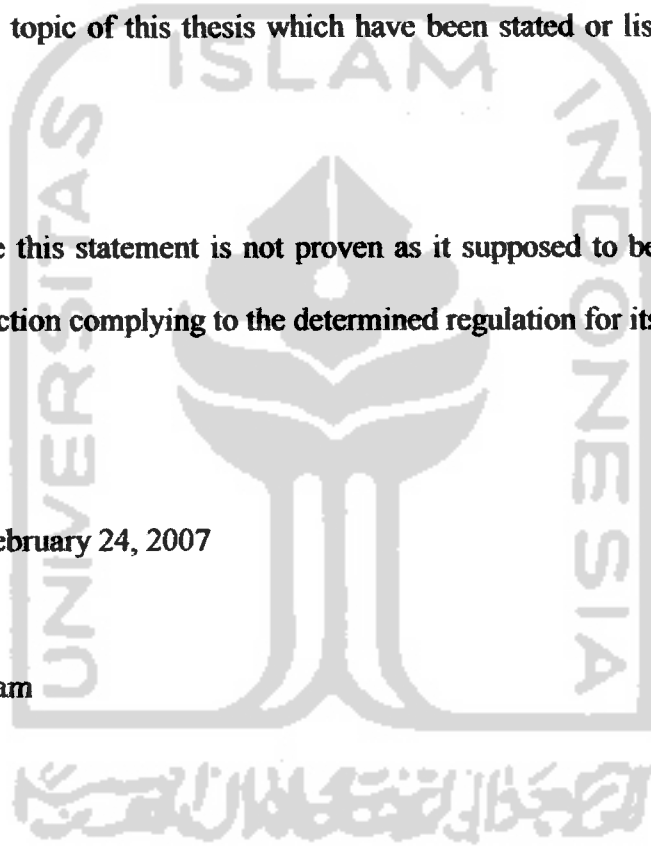
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Herein I declare the originality of this thesis; thesis is no other work which has ever presented to obtain any university degree, and in my concern there is neither one else's opinion nor published written work, except acknowledged quotation relevant to the topic of this thesis which have been stated or listed on the thesis bibliography.

If in the future this statement is not proven as it supposed to be, I am wiling to accept any sanction complying to the determined regulation for its consequence.

Yogyakarta, February 24, 2007

Andi Darussalam





*I dedicate this thesis to;
My beloved Dad and Mom*

ACKNOWLEDGMENT

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In the name of Allah Almighty, the most gracious, I would like to express my praise completely to Allah SWT for his marvelous love and guidance upon the accomplishment of this thesis. My honor also goes to Prophet Muhammad SAW for his blessing and enlightening direction.

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Andi Darussalam



ABSTRACT

Darussalam, Andi (2007) "The effect of asymmetric information on capital structure of listed Indonesian LQ 45 companies for the period 2003- 2005" Yogyakarta: Management Department, International Program Faculty of Economics, Universitas Islam Indonesia.

Asymmetric information is a condition where a manager is more understand earnings' condition of a company and investment opportunity rather than outside investors. Asymmetric information is important for a company because it can influence capital structure of the company. When a manager finds a chance to get good investment, outside investors will not directly trust to what the manager says without proof. However, the project will see it as good investment after it is running for several years. That is why asymmetric information can affect the condition and the wealth of a company.

This study shows asymmetric information condition between the firm and outside investors. The researcher examines the effect of asymmetric information on capital structure by using firm size, and insiders' ownership as proxy of asymmetric information. The researcher took companies listed in LQ 45 companies as the sample data, and used Ordinary Least Square (OLS) as analysis method to determine the effect of asymmetric information on capital structure.

Based on the research findings, there are only 21 companies that can be the sample because the companies listed consistently in LQ 45 companies from 2003- 2005. According to the final research's estimation, the researcher concluded that the asymmetric information which gives negative significant effect on capital structure of Indonesian LQ 45 companies is not proven.

Keyword: capital structure, asymmetric information, insiders' ownership.

ABSTRAK

Darussalam, Andi (2007) "The effect of asymmetric information on capital structure of listed Indonesian LQ 45 companies for the period 2003- 2005" Yogyakarta: Management Department, International Program Faculty of Economics, Universitas Islam Indonesia.

Penyimpangan informasi adalah suatu kondisi dimana seorang manajer lebih mengetahui kondisi pendapatan perusahaan dan kesempatan investasi daripada investor luar. Penyimpangan informasi penting bagi suatu perusahaan, karena hal itu akan mempengaruhi struktur modal perusahaan. Ketika seorang manajer mengetahui kesempatan untuk mendapatkan investasi yang baik, investor luar belum tentu selalu percaya dengan apa yang dikatakan oleh manajer tanpa disertai bukti. Akan tetapi, proyek tersebut baru bisa terlihat sebagai investasi yang baik setelah berjalan selama beberapa tahun. Oleh karena itu penyimpangan informasi dapat mempengaruhi kondisi dan kekayaan perusahaan.

Penelitian ini menunjukkan kondisi penyimpangan informasi antara perusahaan dan investor luar. Peneliti menguji pengaruh dari penyimpangan informasi pada struktur modal dengan menggunakan ukuran perusahaan dan kepemilikan orang dalam sebagai turunan atau penyebab dari penyimpangan informasi. Peneliti mengambil perusahaan-perusahaan yang terdaftar di perusahaan-perusahaan LQ 45 sebagai contoh data dan menggunakan Ordinary Least Square (OLS) sebagai metode analisis untuk menentukan pengaruh penyimpangan informasi terhadap struktur modal.

Berdasarkan penelitian yang dilakukan, hanya ada 21 perusahaan yang bisa dijadikan contoh karena perusahaan-perusahaan tersebut terdaftar secara konsisten di perusahaan-perusahaan yang termasuk dalam LQ 45 dari tahun 2003- 2005. Menurut hasil akhir perhitungan dari penelitian, peneliti menyimpulkan bahwa penyimpangan informasi yang memberikan pengaruh negatif secara signifikan terhadap struktur modal pada perusahaan-perusahaan LQ 45 adalah tidak terbukti.

Kata kunci: struktur modal, penyimpangan informasi, kepemilikan orang dalam.

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CHAPTER I INTRODUCTION

1.1 BACKGROUND

Nowadays the debating about the capital structure is still continuing. Debt still influences capital structure theory significantly. The fact that “ Signaling Theory” and “Pecking Order Theory” have long been recognized as two important developments in the capital structure theory, researchers still have little agreement on what determines the capital structure of a firm and what theory will be followed in formulating its debt and equity. Researchers predict the capital structure based on Signaling theory or Pecking Order Theory.

As the previous research which was quoted by Brigham and Houston (1999), the signaling theory was action done by management of one firm to give signal for investors about how management sees the prospect of a company. If the company has good prospect, the investors will try to avoid selling their stock and find new capital with another strategy. The example of signaling theory is by using debt in over target of capital structure. When a firm often announces a new stock, the price of its stock will decline. The implications for capital structure’s decisions is because issuing new stock means a negative signal and thus tends to depress the stock price, even if the company’s prospects are bright.

Pecking Order Theory was discovered by Donaldson in 1961, and the name of Pecking Order Theory was given by Myers (1984). In the Pecking Order Theory, there are two kinds of capital, external and internal. External capital means that we gain fund from outside a firm, for example investors, while internal

capital means that we get fund from inside a firm, for example depreciation. In this case, a manager has an important position to decide capital structure decision. According to Myers and Majluf (1984), there are two main assumptions that have correlation to the manager. First, a manager is more understand earnings' condition of a company and investment opportunity rather than outside investors called **asymmetric information condition**. And second, a manager acts based on existing shareholder's way.

Modigliani and Miller (M&M) (1963) explains that in incomplete capital market, the capital structure will increase the company value because debt rate that is less revenue is affected by tax. MM theory has been supported by empirical study of Black and Scholes (1974). On the other hand, Taggart (1980) states that in the incomplete capital market investor's preference cannot be predicted. Gordon Donaldson (1961) adds that if asymmetric information happens, the use of debt is preferable to emphasize the company, then to launch new stock. It happens because there is asymmetric information in which managers have better information about firms prospect rather than investors. Investors can see that the supply of new stock as a bad signal, so that the stock price of the company will fall down if new stock is launched. Donaldson concludes that a company likes to use fund with classification return earning, debt, and selling new stock. It means that Donaldson prefers to choose pecking order theory to analyze asymmetric information on capital structure.

Bayless and Diltz's empirical studies have proven that pecking order theory consists of asymmetric information. Based on some empirical data that

show asymmetric information phenomenon in the capital market, this research focuses on pecking order theory empirically in order to predict level of upper capital structure and lower capital structure. But we cannot only focus on pecking order theory, because signaling also has advantages for a company. They can give a signal of the condition of a company that can only be understood by specific investors.

Kaaro (2003), an Indonesian writer, writes in his journal that companies prefer to use fund from internal capital because there is account payable and depreciation. He states that in the reality, sometimes a manager has better information than investors, so it affects a capital structure. He also adds that using pecking order theory can predict profitability of a company in the next time with different economic condition. Husnan (1996) says that he agrees with the pecking order theory because this theory prefers to use internal fund rather than external fund. Meanwhile, signaling tries to use external fund such as debt. The reasons are, first, if the firms launch new stock, it will decrease price of old stock. Second, if the firms launch new stock, it will be interpreted by investor as a bad signaling.

Saidi (2004), an Indonesian writer, writes in his journal that the announcement of stock issue in a company will give a signal that management of the company see bad future for this company. If the company is often offering new stock more than normally, so the price of their stock will decrease. Launching new stock means giving a bad signal to the public even though the company has good future.

Arifin (2005) states in his book that assumption of asymmetric information suggested by Myers and Majluf is important to the company. Because with this assumption, it means that a manager finds a chance to get good prospect of investment, but outside investors will not trust to what the manager says without proof. However, the project will see as good investment after it is running for several years. If companies launch new stock, it will inflict a financial loss for existing shareholders.

The result of the previous study is that debt and equity has different sensitivity to changes in firm value. Stock prices are much more sensitive than bond prices to any information about future prospects of a company. If management has good news of possession, it will cause a larger increase of stock prices than bond prices. For asymmetric condition, the pecking order theory suggests that the preference of using internal financing is common than using external financing. Furthermore, signaling theory suggests to use external condition when asymmetric information happens. When external funds are required, a firm prefers debt financing to equity financing.

Based on the explanations above, the researcher is interested to make a research of Indonesian firms and analyze the effect of asymmetric information's implications on capital structure. The importance of this topic is to prove the implementation of pecking order theory and signaling theory to analyze capital structure in asymmetric situation especially in manufacture companies. Even though this topic already exists in Indonesia, but in fact rare researchers have proven the importance of these theories analytically in Indonesia. Because of that,

the researcher takes the title of **“THE EFFECT OF ASYMMETRIC INFORMATION ON CAPITAL STRUCTURE OF LISTED INDONESIAN LQ 45 COMPANIES FOR THE PERIOD 2003-2005”**.

1.2 PROBLEM IDENTIFICATION

The problem of how to explain firm's capital structure decision is probably the most intensely debated issue in corporate finance. A lot of companies tend to use internal capital for their companies rather than external capital because they do not want to expose their companies to public. Internal capital is more private than external capital. Sometimes managers have better information than outside investors, when what is called **asymmetric information condition** happens. The condition has an important effect on the capital structure. So, we need some theories based on *relevance proposition*, such as pecking order theory. Shyam-Sunder and Myers (1999) conclude that the pecking order offers a good approximation to financing behavior.

The previous research which is quoted by Myers and Majluf (1984) argue that asymmetric information problems drive the capital structure of firms. Myers (1984) suggests that if managers know more than the rest of the market about the firm's investment opportunities (information asymmetry), the market penalizes the issuance of securities (like equity) whose valuation is crucially related to the assessment of such opportunities.

There are a few variables that have influenced significantly to capital structure. According to the research done by Ghosh (2000), the factors effecting capital structure of 500 Manufacture Company in USA are growth of assets, fixed assets ratio, and R&D expenditure. Otherwise, according to Krishnan and Moyer (1996) that has done a research in manufacture companies in USA, size, profit and tax rate have significantly affected capital structure of manufacture companies.

In line with the effect of asymmetric information on capital structure, the investors need to have balance information. It is important to stakeholders to analyze the condition of capital structure in company. Some of previous studies, Donaldson (1961), Modigliani and Miller (M&M) (1963), Myers and Majluf (1984), Shyam-Sunder (1999), Fama and French (2002), and Frank and Goyal (2003) investigated the same topic about the interaction effect of asymmetric information on capital structure. All of them used some data from United States Exchange. In this study, the researcher will examine the effect of asymmetric information on capital structure by using the data from Jakarta Stock Exchange. Because there is still a debate between pecking order theory and signaling theory, then this different argument provides a basis to distinguish both of them. The research problems being solved in the study are formulated into the following question:

- Whether asymmetric information influences firms' capital structure decisions.

1.3 PROBLEM FORMULATION

This research examines the significant effect of asymmetric information on capital structure of Indonesian firms listed in LQ-45 Jakarta Stock Exchange (JSX) during the period 2003-2005. Based on the background and the explanation above, then the problem formulation is:

- How does the asymmetric information affect the capital structure of company?

1.4 PROBLEM LIMITATION

For focusing this study, the researcher made several limitations in the investigation. In this case, the researcher does this research on Indonesian companies with some scope limitations, which are:

1. This research will use the data from Indonesian companies, which are consistently listed in LQ-45 Jakarta Stock Exchange (JSX) for the period 2003-2005.
2. Variables taken are profitability, tangible assets, firm size, business risk, and insider ownership.
3. Other events occur, either political or economical, and they are assumed to have no effect and will be ignored.

1.5 RESEARCH OBJECTIVE

This paper examines the asymmetric information effect on the change of capital structure. The results will show the reaction of managers and outside

investors toward the changes of capital structure, whether they react positively or negatively following the changes.

The objective of this research is to provide empirical evidence that asymmetric information gives significant effects on capital structure of Indonesian companies listed in LQ-45 Jakarta Stock Exchange (JSX) for the period 2003-2005.

1.6 RESEARCH CONTRIBUTIONS

This research examines about the effect of asymmetric information on the capital structure, which the researcher hopes will be beneficial for the following parties:

1. **Company**

This research can be used as an input for company improvement mainly to evaluate and analyze capital structure movement with the variables and to anticipate any possibilities of market reaction.

2. **Manager**

Manager will hopefully use this research to estimate the effect of asymmetric information to its future performance of their capital structure.

3. **Outside Investors**

This research can help outside investors making policy for companies, especially in considering the effect of asymmetric information on those capital structure policies.

4. Academicians

This research can be useful as the references for the academicians, lecturers, students, and others.

5. Government

This research can give more information to the government which needs some concern to make economics policies especially about investment policy and financing assessment for Indonesian manufacture companies.

1.7 DEFINITION OF TERMS

Definitions of the term are needed to make the readers easily understand about the meaning of the main terms related to the study in this thesis. The terms used in this study are described as follows:

1. Capital structure

Capital structure means the combination of debt and equity in long term financial structure of a company (Zaenal Arifin, 2005).

2. Asymmetric information

Asymmetric information means the differences of information received by managers and investors (Deshmukh, 2005).

3. Insiders ownership

All individuals and companies that have ownership higher than 5% of ownership and must be listed, except public company, state companies,

financial institutions, and public (La Porta et.al.,1999 and Claessens et.al., 2000).

4. Financial Distress

Financial distress means a situation that occurs when a company has difficulties in meeting its contractual obligations (Shapiro and Balbirer, 2001).



CHAPTER II REVIEW OF RELATED LITERATURE

2.1 THEORETICAL REVIEW IN CAPITAL STRUCTURE

A theoretical framework is a conceptual model of how one theorizes or makes logical sense of the relationships among the several factors that have been identified as important to the problem. This theory flows logically from the documentation of previous research in the problem area. Integrating one's logical beliefs with published research, taking into consideration the boundaries and constraints governing the situation, pivotal in developing scientific basis for investigating the research problem. In sum, the theoretical framework discusses the interrelationships among the variables that are deemed to be integral to the dynamics of the situation being investigated.

Myers and Majluf (1984) argue that asymmetric information problems drive the capital structure of firms. Myers (1984) suggests that if managers want to know more than the rest of the market about the firm's investment opportunities (asymmetric information), the market penalizes the issuance of securities (like equity) whose valuation is crucially related to the assessment of such opportunities.

Preview studies of capital structure theories;

2.1.1 Pecking Order Theory

Myers (1984) published his seminar article the characteristic of Donaldson's view on the firm's financing decision as "Pecking Order Theory." The components of the capital structure of a firm include retained

earnings, debt, and equity. Pecking-order theory states that the firms in general prefer internal financing (retained earnings) to external debt-financing, and finally, external equity-financing.

This implies that if a firm has little debt and is in a strong financial position relative to the others in the same industry, it will, most likely, use internal equity for capital expansion projects. Similarly, a firm which uses debt financing for tax and other benefits, will use the common stock capital only as the last resort, due to latter's relative higher costs and dilution of ownership problems. This implies that such a firm often moves its capital structure away from, rather than closer to, the industry's mean.

Myers introduced pecking order theory based on asymmetric information (situation where manager gets more information rather than investors), if the stock price in the market is over valued that means a firm must reject to launch a new stock. It will cause that stock price would decrease as value process. It means Myers supported what Donaldson said in 1961 that if asymmetric information happened, it would support a firm to use debt and not launch new stock. This made investors see the supply of new stock as bad signaling, so the stock price of the company would fall down if new stock is launched. That is why Gordon Donaldson takes a conclusion that a firm prefer to use fund with classification account payable, debt, and selling new stock. This theory also tries to find and prove that the pecking order hypothesis is more valid than the other hypothesis.

Since internal funds avoid informational problems in current period, there would take part of the pecking order. When internal funds are insufficient to meet financing needs for example financing deficit, firms took first action to doing risk free debt, then risky debt and finally equity, which is at the top of the pecking order. Any internal funds in excess of financing needs for example financing surplus are used to repurchase debt, as opposed to equity, because of similar adverse selection problems. Thus, the static pecking order theory imposes a strict financing hierarchy: internal funds first, debt second, and equity last.

The last explanation of Myers and Majluf (1984) describe that to recognize asymmetric information we should use modified or dynamic pecking order. This modification allows equity financing to play a more significant role. Firms may issue equity in place of debt or internal financing to maintain both liquid assets and debt capacity for future investments, there would be avoiding potential underinvestment problems and lowering expected bankruptcy costs.

Cai and Ghosh state that they generally agrees with the pecking order theory, that is, firms prefer using internal financing as opposed to using external financing. Furthermore, when external funds are required, a firm prefers debt financing to equity financing.

Kaaro, an Indonesian writer, wrote in his journal that a company prefers to use fund from internal capital, such as account payable and depreciation. Sometimes a manager has better information rather than

investors, so it has effects to capital structure. He said that using pecking order theory can predict profitability of a company in the next time with different economics' condition.

The benefits of using pecking order theory:

1. A company that has good prospect will prefer to use debt than sell stock or launch a new stock because it shows a positive signaling by investors.
2. Other way, a company that has bad prospect would prefer to sell stock or launch a new stock than use debt. So, it is negative signaling for investors.

Variables in the pecking order theory such as return on assets (ROA), growth of sales, size, ownership structure, and growth of total assets have already tested in the past researches. The examples are the researches of ROA by Carleton and Silberman (1977), and also Chang and Rhee (1990) or growth of total assets by Baskin (1989). This variable as empirical side proved can significantly affect to predict prospect profitability of company in the future and also can predict the bankruptcy of a company. The result is very relevant to be implemented in Indonesia.

2.1.2 Agency Theory

This theory gives an argument that by using debt we can reduce agency cost of equity. Other studies try to explain capital structure passing through to balancing between cost and function from using debt. That is

why, sometimes agency theory is also called trade off theory. The meaning of trade off theory is condition in which firm's trade of the benefits of debt financing (favorable corporate tax treatment) against the higher interest rates and bankruptcy costs.

According to Jensen (1983) there are two approaches to develop agency theory, *positive theory agency* and *principle agency literature*. Positive agency theory focuses on empirical test, non mathematical approach and also focuses on effects of contract technology system and specific human or physical system. And, principle agency literature focuses on mathematical approach, non empirical test, and effect of asymmetric information.

Agency theory suggests that the lower the managerial ownership of the firm, the greater need for monitoring activities since the management has an incentive to consume excess invest in large project for ego rather than profitability. Debt is a possible avenue for monitoring this problem. Jensen and Meckling (1976) show that debt could be used to lower of the need for external equity capital which would increase managerial percentage ownership in the firm. They also hypothesize that manager of the firm will bear the full costs of agency problems, so they will have an incentive to reduce agency costs in any way possible. Because debt allows managers to own a greater portion of the firm, there is a predicted positive relationship between the change in leverage and the change in managerial ownership.

Jensen (1986) says that a manager may use excess cash flow to invest in negative NPV projects because they would rather be managers of larger firms. This problem is especially bad in firms who are mature and have few growth opportunities, as they have few profitable investments. However, by increasing debt with its required interest payments, managers are bonding their promise to payout future cash flows. It would indicate that firms with excess cash flow and low growth opportunities will use more debt financing for monitoring purposes. Thus, there is a predicted positive relationship between the change in debt and the change in growth opportunities and the change in leverage.

While managerial owners reduce agency costs, outside monitoring such as institutional owners can also monitor the firm. With a large proportion of stock held by institutions, there is less need for debt as a monitoring device. Grier and Zychowicz (1994) suggest that institutional investors are more likely to have advantages in monitoring management through their research capabilities than individual investors. Institutional investors may help in reducing the firms agency cost and become substitute for debt if institutions can monitor managerial activities at a low cost.

Assuming that the debt ratios increase more if the offers are financed by new debt instead of cash, these results support the view that self-tender offers are perceived as more favorable when they result in large debt ratio increases. Further interpretation of these results is difficult,

however, as it is unclear whether the preannouncement debt ratios are below the optimal levels and whether the type of financing is correlated with other variables that affect either the magnitude of the debt ratio increase or the announcement period returns. More recently, Dittmar (2000) documents that firms that repurchase shares have lower debt ratios than industry peers. To the extent that the industry norm proxies for the optimal ratio, Dittmar's (2000) results offer some evidence that debt ratios are lower than optimal before self-tender offers.

2.1.3 Signaling Theory

Signaling means an action taken by a firm's management which provides signal to investors about how management views the firm's prospects. According to Miller and Rock (1985), the replacement of standard assumption that outside investors and inside managers have the same information about a firm's current earnings and future opportunities by the more realistic one that managers know more than outsiders about the true state of the firm brings both good and bad news for the theory of finance.

The signaling theory is based on asymmetric information problems. In the firms where individuals who supply capital do not run the firms themselves, there exist two types of asymmetric problems. The first problem arises when there is adverse selection. The controlling managers may possess some information that is unknown to outside investors. In such cases the financing method can serve as a signal to outside investors.

Second, facing information asymmetry between inside and outside investors, firms end up having a financial hierarchy. Then, they try to use their retained earnings, and then move to debt when their internal funds run out.

This theory can be used by managers to inform good information to outside investors, because the signals given to investors cannot be imitated with other information. According to literature of finance, action done by signaling company will affect deadweight costs for making outside investors believe in the signals. Ross (1977) shows that good performance of companies can be seen from higher debt orientation in their capital structure.

The signaling theory has given good explanation about differences of market response toward kind of security type that is published by a company. Launching debt is a signal of good news for outside investors, because managers more believe in the performance of their company in the future. On the other hand, launching new stock in the market can be seen as bad news for outside investors because there will be possibility decreasing earning in the future.

2.2 PREVIOUS RESEARCH

First is the research that is done by Klein, O' Brien, and Peters (2002). They have done a research in determinants of the debt versus equity and asymmetric information: A review. They made a review of evidence on

asymmetric information and the choice of debt versus equity. They reviewed the impact of asymmetric information at one specific area of corporate finance, the choice of capital structure claims in terms of debt versus equity. According to Riley (2001), capital structure is a topic that has been dramatically affected by the accurate consideration of asymmetric information. It appears to be the first to note that financial policies may convey information on firms' prospects. Based on Nobel laureates in the 2001, asymmetric information theory introduces the concept of adverse selection. When contracting with an agent with superior information, a uninformed agent faces the consequences of adverse selection.

Second is the study done by Sreedhar T. Bharath, Paolo Pasquariello, and Guojun Wu. They have done a research to prove whether asymmetric information drives capital structure decisions. They use pecking order theory to test if asymmetric information is the sole determinant of capital structure. They focus exclusively on the market's perceived intensity of asymmetric information rather than on proxies based on ex-ante firm characteristics. They find that information asymmetry does affect capital structure decisions of U.S firms over the sample period 1973-2002. It only affects when firms' financing needs are low and when firms are financially unconstrained. We also find significant inter temporal variability in firms information asymmetry, as well as in its impact on their debt issuance decisions. This evidence explains why pecking order is only partially successful in explaining firm's capital structure decisions.

1. Profitability

The researcher chooses this variable as first control variable on capital structure because the higher profitability of a firm means the higher amount of retained earnings available with a higher amount of retained earning available, and a firm may prefer retained earnings to borrow (Chang and Rhee, 1990). According to Myers (1993), a company with higher profitability means the company has lower debt ratio. The pecking order theory suggests using first internal funds and then moving to external funds. This means that high profit firms should have a smaller debt ratio.

2. Tangible Assets

Collateral is required for the lenders in order to compensate the asset-substitution problem occurring. For the firm that cannot provide collateral, it may require higher lending terms. Therefore, debt financing is more costly than equity financing. Moreover the asset substitution problem is less likely to occur when firms have more assets already in place (Myers, 1977). Rajan and Zingales (1995) state the greater proportion of tangible assets, the higher should be leverage. Based on these explanation tangible assets can be included as control variable on capital structure.

3. Business Risk

Business risks are affected by many factors. Brigham et. al. (1999) state at least there are few factors that determine business risk. Demand uncertainty is more predictable than demand for a firm's product. If the demand uncertainty and other variable stay constant, it means lower business risk. The variability

of sales price also influences business risk. Firms whose input costs are highly uncertain are exposing to a high degree of business risk. The greater the ability to adjust output prices to reflect costs conditions, the lower the degree of business exposure. Firms that generate a high percentage of their earnings overseas are subject to earnings declines due to exchange rate fluctuations. Business risk depends on the extent to which costs are fixed. When the other things stay constant, the higher a firm's fixed costs, the higher a firm's operating leverage, the higher the variability of profit, so the greater its business risk. Because of that, business can mention as control variable in measurement of capital structure. A firm has relatively low business risk, small sales variability, low operating leverage, and soon can take on more debt than firms with high business risk.

HYPOTHESIS DEVELOPMENT

Asymmetric information occurs when managers of firm usually have better information than outside investors. According to Brigham et. al. (1999), there are three suggestions about corporate financial policy based on this theory, which are:

1. In a real world where asymmetric information exists, corporations should issue new share only in the unlikely event that they have extraordinary profitable investment that cannot be postponed, signaled to investors, or financed by debt, or in situations where management thinks that the share is overvalued.
2. Selling pressure drives down a company's share price when it announces plans to issue new shares.

3. The pecking order that Donaldson observed is rational when asymmetric information exists.

The researcher uses firm size and insiders' ownership as the proxy of asymmetric information between insider and outsider investors. The researcher chooses two variables as proxy for asymmetric information because both of them affect significantly to capital structure. The first proxy is firm size. Fama and Jensen (1983) argue that larger firms tend to provide more information to outsiders than smaller firms. This statement indicates that larger firm tends to decrease asymmetric information. These arguments predict a positive relationship of asymmetric information between inside investor and outside investor.

The second proxy of asymmetric information is insiders' ownership. According to La Porta et. al. (1999) and Claessens et. al. (2000), the definition of insiders' ownership is all individuals and companies that has list ownership (higher than 5% of ownership must listed), except public company, state companies, financial institutions (such as insurance, bank, investment institution, pension fund, and cooperation), and public (individual investor that can be ignored). When ownership structure in a company tends to concentrate, it means that higher debt ratio can be tolerated. A company which is controlled by a family has higher leverage ratio than a company controlled by spreading ownership (Arifin, 2005). The empirical research indicates that the insider ownership has an effect on debt significantly. When a company is owned by insider ownership, investors can know the real condition of company. If managers find good investment opportunity, they can directly add fund for that opportunity.

HYPOTHESIS FORMULATION

This study analyzes the interaction effect of asymmetry information on the capital structure, which is positive or negative or even no change after asymmetry information happens, collected from Jakarta Stock Exchange and Indonesian Capital Market Directory for period of year 2003-2005. In their research, Bharath, Pasquariello, and Wu stated that asymmetric information gives significant effect on capital structure. This result indicates that the higher of asymmetric information is affecting the companies to reduce their capital structure.

As explained in the hypothesis development about asymmetric information that has two proxies, they are firm size and insiders' ownership. The hypothesis is divided into two hypotheses, major hypothesis and minor hypothesis.

Major Hypothesis

There is significant effect of asymmetric information on the capital structure. It is stated as follows:

H_a: The asymmetric information gives negative significant effect on capital structure.

Minor Hypothesis

Those two variables, firm size and insiders' ownership uses as proxy for asymmetric information because both of them have significantly effect to capital structure. The hypotheses are:

H₁: Firm size has positive influence on capital structure

H₂: Insiders' ownership has positive influence on capital structure

And the other variables that also influence the capital structure are profitability, tangible assets, and business risk. The hypotheses are:

H₃: Profitability has negative influence on capital structure

H₄: Tangible Assets have positive influence on capital structure.

H₅: Business Risk has positive influence on capital structure



CHAPTER III RESEARCH METHOD

3.1 POPULATION AND SAMPLE

Population is a group of comprehensive elements that is usually in the form of people, object, transaction or event where somebody is interested in learning or making them the research object (Kuncoro, 2000). Population in this research is all companies listed as LQ-45 companies in Jakarta Stock Exchange during 2003- 2005. The method used in this research is probability sampling design. Probability sampling design is a technique to collect sample of companies based on the same opportunity to be the sample. The purpose of the research is to analyze the effect of asymmetric information on capital structure. The researcher selects the time period of 2003- 2005.

The sample is a part of the population that becomes the research object where the characteristic of the sample is homogenous. The sample of this research is all companies that include in LQ-45 companies as Indonesian manufacturing companies.

3.2 RESEARCH SETTING

All data used in this research is secondary data. The researcher collects and gathers the data directly from the financial statement of the LQ 45 companies listed in Jakarta Stock Exchange during 2003- 2005. The researcher also gets the data from Indonesian Capital Market Directory, newspaper, and magazine. To collect the data, the researcher uses two techniques, literature review and journal.

3.3 RESEARCH VARIABLES

The researcher decides the dependent and independent variables that will be used in the regression analysis. This research involves six variables consisting of one dependent variable and five independent variables. The dependent variable for this research is capital structure. And for the independent variables is asymmetric information between manager and outside investor, firm size, profitability, tangible assets, business risk, and insider's ownership.

3.3.1 Dependent Variable

Capital structure can be defined as leverage of the company. It means capital structure can be estimated from total liabilities of companies divided by total assets of company.

$$\text{Capital Structure} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

3.3.2 Independent variables

3.3.2.1 Asymmetric information

Asymmetric information occurs when managers of a firm usually have better information than outside investors. The researcher uses firm size and insiders' ownership as proxy for the level of asymmetric information between the manager and investor because according to previous research, the different size between each firms would affect their capital structure and the person who becomes the owner of firms would affect whether they are insiders ownership or outsiders ownership. Myers and Majluf (1984) argue that asymmetric information problems drive the capital structure of firms. Myers (1984) suggests that if

managers want to know more than the rest of the market about the firm's investment opportunities (asymmetric information), the market penalizes the issuance of securities (like equity) whose valuation is crucially related to the assessment of such opportunities.

3.3.2.2 Firm Size

Fama and Jensen (1983) argue that larger firms tend to provide more information lenders than smaller firms. These arguments predict a positive relationship; however, size may be inversely to the level of information asymmetries between insiders and outside investor (Rajan and Zigales, 1995). The measure used in this study is the natural logarithm of its total assets.

$$\text{Firm Size} = \text{Natural log of Total Assets}$$

3.3.2.3 Profitability

To measure profitability is by the ratios of average profit after tax to total assets; as Titman and Wessels (1988) point out, they measure profitability in earlier periods as well reveals the long term effects of profitability on leverage.

$$\text{ROI} = \frac{\text{Profit After Tax}}{\text{Total Assets}}$$

3.3.2.4 Tangible Assets

Tangibility has been suspected to have positive influence on leverage. The higher the value of tangibility assets is, the more likely that a firm will have a high leverage ratio. The proxy to measure the value of tangible assets is the ratio of fixed assets to total assets.

$$\text{Tangible Assets} = \frac{\text{Fixed Assets}}{\text{Total Assets}}$$

3.3.2.5 Business Risk

The business risk of a firm is related to its operating leverage. So business risk is an important factor that influences leverage of a company. The higher variability of profit is the greater business risks (Brigham et. al. 1999).

$$\text{Risk} = \frac{\text{Percentage Change in EBIT}}{\text{Percentage Change in sales}}$$

3.3.2.6 Insiders Ownership

Jensen and Meckling (1976) argue that insider ownership is percentage of stock owned by directors, management, and commissioners, and also part of the body that are directly responsible for decision making. The finance literature has long been recognized that information asymmetry between management as insiders ownership and investors as outsiders ownership could impact firm's decisions. For example, Ross (1977) demonstrates that a manager of firms with better prospect has incentives to signal his firms by issuing a level of debt greater than he otherwise has done before.

Sometimes the manager finds good opportunity for a company, but after manager informs this information to outside investors, the outside investors disbelieve in it. When a company owned by insider ownership, they would know the real condition in the company. So, if the company has good prospect, it would be easier for the company to get fund from insider ownership. According to La Porta et. al. (1999) and Claessens et. al. (2000), *insiders' ownership is all individual and companies that have list ownership (higher than 5% of ownership must listed), except public company, state companies, financial institutions (such as insurance, bank, investment institution, pension fund, and cooperation), and*

public (individual investor that can ignore). This definition would be used as a requirement to measure insiders' ownership in formulation.

3.4 HYPOTHESIS TESTING

Based on the explanation of problem formulation and theoretical review, the alternative hypothesis can be concluded as follows:

Major Hypothesis

H_a: the asymmetric information gives negative significant effect on capital structure

Minor Hypothesis

H₁: firm size has positive influence on capital structure

H₂: insiders' ownership has positive influence on capital structure

H₃: profitability has negative influence on capital structure

H₄: tangibility has positive effect on capital structure.

H₅: business has positive influence on capital structure

This research will use Ordinary Least Square (OLS) method to analyze the effect of independent variables on dependent variables. The formulation is:

$$Y_t = \alpha + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \beta_5 X_{5t} \dots \dots \dots (3.1)$$

$$CS = \alpha + \beta_1 PROF_i + \beta_2 TA_i + \beta_3 SIZE_i + \beta_4 BR_i + \beta_5 IO_i$$

Explanation:

Y_t : capital structure of *i* company during t year

X_{1t} : profitability of *i* company during t year

- X_{2t} : tangible assets of i company during t year
 X_{3t} : firm size of i company during t year
 X_{4t} : business risk of i company during t year
 X_{5t} : insiders' ownership of i company during t year

3.5 CLASSICAL ASSUMPTION TEST

3.5.1 Multicollinearity test

Multicollinearity means the existence of a “perfect” or exact, linear relationship among some or all explanatory variables of a regression model. The existence of multicollinearity causes inappropriate estimation result (Gujarati, 1995). According to Agus Widarjono (2005), multicollinearity is relationship between independent variable in one regression model.

According to Gujarati (1995), as a rule of thumb of this test is high pair wise correlation among regression. If the pair wise or zero order correlation coefficient between two repressors is high, for example, above of 0.8, there is multicollinearity problem.

3.5.2 Heteroscedascity test

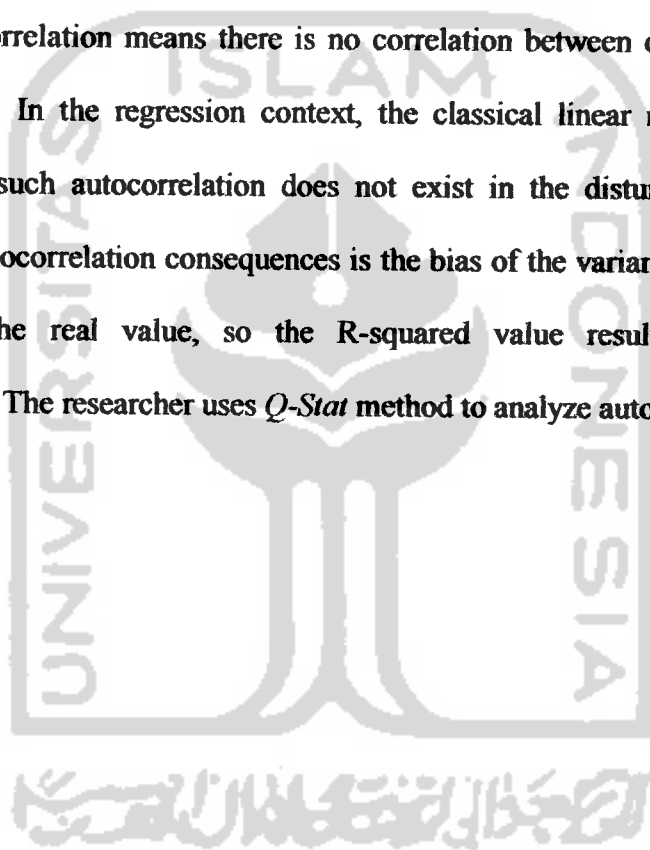
The heteroscedasticity symptom will appear when the residual (e_1) has the different variance from one observation to another. In the reality, residual from regression model sometimes did not constantly. If there is heteroscedasticity in calculation, it would affect estimator of OLS by which the researcher uses it as analysis method.

Heteroscedasticity can happen because of inconstantly variance. For example we analyze cross section selling data of manufacturing company. Error

terms will be correlated with the size of a company. Larger firms have higher error terms and small firms have lower error terms because selling of larger firms are more fluctuate than small firms.

3.5.3 Autocorrelation test

Autocorrelation means there is no correlation between one residual with other residual. In the regression context, the classical linear regression model assumes that such autocorrelation does not exist in the disturbance (Gujarati, 1995). The autocorrelation consequences is the bias of the variance to the smaller value from the real value, so the R-squared value resulted tend to be overestimated. The researcher uses *Q-Stat* method to analyze autocorrelation.



CHAPTER IV

RESEARCH FINDINGS, DISCUSSION, AND IMPLICATIONS

This chapter explains about the process of collecting data, data measurement, data analysis technique, and also data interpretation of this research.

4.1 RESEARCH DESCRIPTION

4.1.1 Preparation of Research

To prepare the data, the researcher has studied journals, books, and website related to the topic. The data needed were collected from Indonesian Capital Market Directory (ICMD) 2003- 2004 of Jakarta Stock Exchange (JSX) corner at Faculty of Economics Islamic University of Indonesia and Financial Statement companies 2002- 2005 from Jakarta Stock Exchange (JSX) in *Pusat Data Pasar Modal*, Faculty of Economics Gajah Mada University. The criteria of data are;

- a. The number of companies including in LQ 45 listed consistently from the year 2003-2005 was 21 companies. Those companies had sorted and had passed the requirements as the samples of the research because of the completeness of the data. The research analyzed Indonesian LQ 45 companies for the period of 2003-2005, so the total of 21 companies were timed to 3 years. Finally, total samples in the research were 63 companies (see appendix 1)
- b. The data that are used in this research include the information of financial statement from 21 companies' year at JSX period 2003- 2005. The data

include: capital structure (CS), profitability or ROI (%), tangible assets (TA), firm size, business risk (BR), and insiders ownership (IO) (see appendix 1)

- c. The data were obtained, and then processed by making several calculations using Microsoft Excel computer software to measure the notation as a basis in making research variables needed in the research.

4.1.2 Research Process

The data used in the research were quantitative data that were obtained from Indonesian Capital Market Directory (ICMD) 2003-2005 Jakarta Stock Exchange (JSX) corner at Islamic University of Indonesia and Financial Statement 2002- 2005 Data based on Jakarta Stock Exchange (JSX) in *Pusat Data Pasar Modal*, Faculty of Economics Gajah Mada University. The companies that became the samples of the research were 21 companies. The data are selected to fulfill the requirement for the research. The number of Indonesian companies listed consistently from the year 2003-2005 was 63 companies.

The hypothesis testing was done by using statistical testing method analyzed by *Ordinary Least Square* (OLS) in measuring the variables. Microsoft excel was used to calculate the value of each variable. Then the data were processed by using Eviews 4.1 for the statistical calculations.

4.2 RESEARCH FINDINGS

4.2.1 Statistical Description

The samples in this research were the LQ 45 firms listed consistently in JSX from 2003-2005. Based on the research process, the research findings determined 21 companies as the samples of the research. Some companies were eliminated because they are not consistently listed in JSX. The reason why the researcher chose consistently listed firms is that researcher wanted to get valid data from this research. From statistical description we can see the correlation between each variable. Two measurements that are always used to make decision in statistics are central tendency (such as mean, median, and modus) and dispersion measurement (such as standard deviation, and variants). Table 4.1 shows the result of the mean, maximum, minimum, and standard deviation each variable in three years:

Table 4.1
Statistical Description of Research Variables

| | CS | IO | PROF | RISK | SIZE | TA |
|-----------|----------|-----------|-----------|-----------|----------|----------|
| Mean | 0.639985 | 50.48524 | 8.546317 | 2.920900 | 16.00586 | 0.400845 |
| Median | 0.581948 | 53.02000 | 7.540470 | 0.448689 | 15.82766 | 0.330543 |
| Maximum | 4.652918 | 84.90000 | 40.14649 | 231.2940 | 18.82735 | 2.387375 |
| Minimum | 0.153014 | 0.000000 | -45.07471 | -70.98573 | 12.65596 | 0.008837 |
| Std. Dev. | 0.540939 | 24.94329 | 11.61906 | 41.85237 | 1.203510 | 0.348730 |
| Skewness | 6.602076 | -0.707917 | -0.756885 | 3.911120 | 0.305608 | 3.021783 |
| Kurtosis | 49.67078 | 2.485662 | 9.976272 | 21.99605 | 3.188645 | 17.71293 |
| | | | | | | |

| | | | | | | |
|-----------------|----------|----------|----------|----------|----------|----------|
| Jarque-Bera | 6175.342 | 5.956464 | 133.7697 | 1107.848 | 1.074076 | 664.1116 |
| Probability | 0.000000 | 0.050883 | 0.000000 | 0.000000 | 0.584477 | 0.000000 |
| | | | | | | |
| Sum | 40.31903 | 3180.570 | 538.4180 | 184.0167 | 1008.369 | 25.25325 |
| Sum Sq. Dev. | 18.14215 | 38574.40 | 8370.152 | 108600.5 | 89.80304 | 7.539990 |
| | | | | | | |
| Observations | 63 | 63 | 63 | 63 | 63 | 63 |

Where:

CS = capital structure
 PROF = profitability
 TA = tangible assets
 SIZE = firm size
 BR = business risk
 IO = insiders ownership

The researcher took firm size and insider's ownership as proxy of asymmetric information. From the table, we can see in central tendency measurement insiders ownership is a variable which has the highest value. And for dispersion measurement such as standard deviation, the highest value is business risk.

4.2.2 Classic Assumption Test

The researcher uses all data collected in three years from LQ 45 firms. It means that all data analyzed in one calculation because samples had collected from 2003- 2005. The variables used are capital structure as dependent variable.

And for independent variables are profitability, tangible assets, firm size, business risk, and insider's ownership. Firm size and insider's ownership have been used as proxy for asymmetric information.

In hypothesis test, rejected or accepted H_0 or called null hypothesis depends on measurement of α . When we are doing hypothesis test, α is type of error meaning that probability rejects right hypothesis. If α is lower, it means that probability to reject right hypothesis is also lower. And, if α is higher, it means that probability to reject right hypothesis is also higher. α is usually decided by randomly, they are 1%, 5%, and 10%. If we use moderate method, we use 10% as α . And if we use conventional method, we use 1% or 5% as α . The researcher uses 10% as α in this research.

Table 4.2

First Estimate Equation of t-Statistic Test

Dependent Variable: CS

Method: Least Squares

Date: 11/22/06 Time: 17:36

Sample: 1 63

Included observations: 63

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------|-------------|------------|-------------|--------|
| C | 0.751233 | 0.680998 | 1.103135 | 0.2746 |
| PROF | -0.021231 | 0.004853 | -4.374874 | 0.0001 |
| TA | 0.641808 | 0.175932 | 3.648057 | 0.0006 |
| SIZE | -0.008362 | 0.039957 | -0.209271 | 0.8350 |
| RISK | 0.000132 | 0.001091 | 0.120838 | 0.9042 |

| | | | | |
|--------------------|-----------|-----------------------|-----------|--------|
| IO | -0.001062 | 0.001905 | -0.557333 | 0.5795 |
| R-squared | 0.627348 | Mean dependent var | 0.639985 | |
| Adjusted R-squared | 0.594659 | S.D. dependent var | 0.540939 | |
| S.E. of regression | 0.344397 | Akaike info criterion | 0.796348 | |
| Sum squared resid | 6.760718 | Schwarz criterion | 1.000456 | |
| Log likelihood | -19.08495 | F-statistic | 19.19150 | |
| Durbin-Watson stat | 1.774390 | Prob(F-statistic) | 0.000000 | |

From the table 4.2 above we can see the result of t-Statistic probability. In t-Statistic probability test, the researcher only compare value of probability (ρ) with value of significant (α). If value of probability (ρ) is lower than value of significant (α), we can reject null hypothesis (H_0) or accept alternative hypothesis (H_1). And if value of probability (ρ) is higher than value of significant (α), we can accept null hypothesis or reject alternative hypothesis. The researcher uses 10% or 0.1 as standard value of significant.

The result on table 4.2 stated only profitability and tangible assets which have value of probability (ρ) lower than value of significant (α). It means that there are only two variables that have significant effect on capital structure. According to this research's hypothesis that profitability has negative effect on capital structure, and tangible assets has positive effect on capital structure; the result of analysis supports the hypothesis.

4.2.2.1 Multicollinearity Test

Multicollinearity means the existence of a "perfect" or exact, linear relationship among some or all explanatory variables of a regression model.

According to Agus Widarjono (2005), multicollinearity is relationship between independent variable in one regression model. The purpose of this test is to test whether the multiple regression models fulfill the assumption that there is no multicollinearity.

The researcher uses matrix correlation to analyze the multicollinearity in a multiple regression model. The criteria of test are:

- Correlation matrix $\geq 0,8$ (Linier correlation between independent variable is exists)
- Correlation matrix $< 0,8$ (Linier correlation between independent variable is not exists)
- Correlation matrix = 1 (Correlated itself)

Table 4.3

Multicollinearity Test by Using Correlation Matrix

| | CS | PROF | TA | SIZE | BR | IO |
|------|-----------|-----------|-----------|-----------|-----------|-----------|
| CS | 1.000000 | -0.708566 | 0.707243 | -0.219335 | -0.019640 | -0.157355 |
| PROF | -0.708566 | 1.000000 | -0.604003 | 0.087087 | 0.032510 | 0.027210 |
| TA | 0.707243 | -0.604003 | 1.000000 | -0.366623 | -0.007013 | -0.230567 |
| SIZE | -0.219335 | 0.087087 | -0.366623 | 1.000000 | -0.044332 | 0.181158 |
| BR | -0.019640 | 0.032510 | -0.007013 | -0.044332 | 1.000000 | 0.264282 |
| IO | -0.157355 | 0.027210 | -0.230567 | 0.181158 | 0.264282 | 1.000000 |

According to the result of multicollinearity test, the value of correlation matrix between independent variables is less than 0,8. It means that linier

correlation between independent variable is not exists. So there is no problem in the multicollinearity.

4.2.2.2 Autocorrelation

Autocorrelation means there is no correlation between one residual with other residuals. The most important thing in OLS method correlated with residual is that there is no relation between one residual and others residual. Autocorrelation can happen if we analyze time series of the data. Sometimes condition of economy is unpredictable, and it would influence sample of firms in the data. The researcher use *Q-Stat* method to analyze autocorrelation. If variable of our data is significant, it means that there is autocorrelation problem.

Table 4.4

The result of autocorrelation test by using Q-Stat Method

| Date: 11/22/06 Time: 17:40 | | | | | | | |
|----------------------------|---------------------|---|--------|--------|--------|-------|--|
| Sample: 1 63 | | | | | | | |
| Included observations: 63 | | | | | | | |
| Autocorrelation | Partial Correlation | | AC | PAC | Q-Stat | Prob | |
| . * | . * | 1 | 0.086 | 0.086 | 0.4908 | 0.484 | |
| . . | . . | 2 | -0.084 | -0.092 | 0.9597 | 0.619 | |
| ** . | ** . | 3 | -0.241 | -0.229 | 4.9182 | 0.178 | |
| ** . | ** . | 4 | -0.287 | -0.274 | 10.632 | 0.031 | |
| . . | . . | 5 | -0.127 | -0.162 | 11.774 | 0.038 | |
| . . | ** . | 6 | -0.059 | -0.191 | 12.021 | 0.062 | |

The value of probability of two variables (profitability and tangible assets) are higher than standard of $\alpha = 10\%$. It means that there is no significant from

those variables. But there are three variables which are lower than the standard of $\alpha = 10\%$. means there is significant problem. So autocorrelation problem is exists.

4.2.2.3 Heteroscedasticity Test

Heteroscedasticity test is used to analyze inconstant relationship between residual and independent variables. From this test, we can get information about the value of probability and the value of Chi square. In the reality, residual from regression model sometimes is not constant. If there is heteroscedasticity in calculation, it will affect the estimator of OLS which is used by the researcher as analytical method. The researcher would like to test the data by using *White Heteroscedasticity* method.

Table 4.5

Heteroscedasticity Test by Using White Heteroscedasticity

White Heteroscedasticity Test:

| | | | |
|---------------|----------|-------------|----------|
| F-statistic | 252.6091 | Probability | 0.000000 |
| Obs*R-squared | 61.72929 | Probability | 0.000000 |

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 11/22/06 Time: 17:42

Sample: 1 63

Included observations: 63

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------|-------------|------------|-------------|--------|
| C | -0.316903 | 1.264233 | -0.250668 | 0.8031 |
| PROF | -0.008218 | 0.001955 | -4.203205 | 0.0001 |

| | | | | |
|--------------------|-----------|-----------------------|-----------|--------|
| PROF^2 | 0.000298 | 5.24E-05 | 5.679383 | 0.0000 |
| TA | -0.251784 | 0.062356 | -4.037815 | 0.0002 |
| TA^2 | 0.349532 | 0.055602 | 6.286353 | 0.0000 |
| SIZE | 0.042800 | 0.156407 | 0.273644 | 0.7854 |
| SIZE^2 | -0.000819 | 0.004791 | -0.170929 | 0.8649 |
| RISK | 0.000219 | 0.000332 | 0.657806 | 0.5136 |
| RISK^2 | -7.15E-07 | 1.71E-06 | -0.417409 | 0.6781 |
| IO | -0.001873 | 0.000997 | -1.879375 | 0.0658 |
| IO^2 | 1.81E-05 | 1.13E-05 | 1.596748 | 0.1164 |
| <hr/> | | | | |
| R-squared | 0.979830 | Mean dependent var | 0.107313 | |
| Adjusted R-squared | 0.975951 | S.D. dependent var | 0.305352 | |
| S.E. of regression | 0.047353 | Akaike info criterion | -3.105060 | |
| Sum squared resid | 0.116600 | Schwarz criterion | -2.730862 | |
| Log likelihood | 108.8094 | F-statistic | 252.6091 | |
| Durbin-Watson stat | 1.813456 | Prob(F-statistic) | 0.000000 | |

The result of the table 4.5 is that value of coefficient determination (R-squared) is 0.9798. The value of Obs*R squared is 61.72929 calculated from amount of observation multiplied by coefficient determination. And, for the value of chi squares (X^2) based on table using $\alpha = 10\%$ with 10 df is 15.9871. Because the value of Obs*R squared is higher than value of chi squared based on the table, it can be concluded that there is heteroscedasticity problem.

Because there is heteroscedasticity and autocorrelation problem on sample of data, the researcher will correct the data using *Newey West method*. Hopefully, by using *Newey West method*, the researcher can solve result in the table 4.6.

4.2.3 Test of Hypothesis

4.2.3.1 Regression Result

As we can see from the table 4.5 that there is heteroscedasticity problem in the sample. It can be said that heteroscedasticity test does not fulfill to least square regression. To solve this problem, the researcher uses *Newey West method* or heteroscedasticity corrected standard errors.

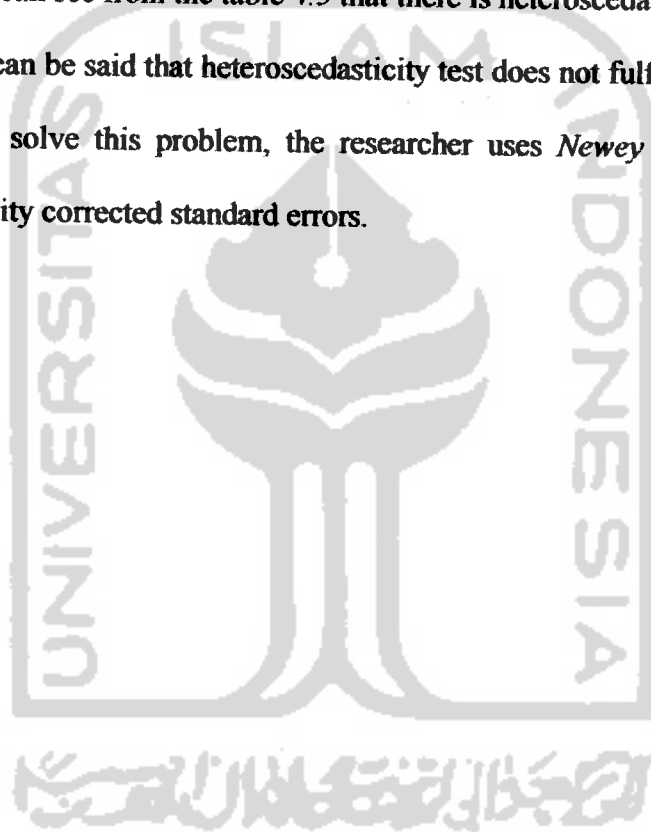


Table 4.6

Result of Final Estimation Regression by using Newey West Method

Dependent Variable: CS

Method: Least Squares

Date: 11/22/06 Time: 18:15

Sample: 1 63

Included observations: 63

Newey-West HAC Standard Errors & Covariance (lag truncation=3)

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| C | 0.751233 | 0.665373 | 1.129041 | 0.2636 |
| PROF | -0.021231 | 0.006956 | -3.052352 | 0.0034 |
| TA | 0.641808 | 0.289146 | 2.219671 | 0.0304 |
| SIZE | -0.008362 | 0.042644 | -0.196085 | 0.8452 |
| RISK | 0.000132 | 0.000964 | 0.136796 | 0.8917 |
| IO | -0.001062 | 0.001691 | -0.627916 | 0.5326 |
| R-squared | 0.627348 | Mean dependent var | | 0.639985 |
| Adjusted R-squared | 0.594659 | S.D. dependent var | | 0.540939 |
| S.E. of regression | 0.344397 | Akaike info criterion | | 0.796348 |
| Sum squared resid | 6.760718 | Schwarz criterion | | 1.000456 |
| Log likelihood | -19.08495 | F-statistic | | 19.19150 |
| Durbin-Watson stat | 1.774390 | Prob(F-statistic) | | 0.000000 |

From the table 4.6, we can see that the value of R-squared is 0.627348. It means that independent variable such as PROF (X1), TA (X2), SIZE (X3), BR (X4), and IO(X5) regarding the dependent variable as effectiveness in reducing the

capital structure (Y) equal to 62,73 %, while the rest 37,27 % will be explained by other factor that is not tested.

The researcher uses two variables as proxy of asymmetric information between manager and outside investor. They are firm size as the natural logarithm of its total assets and insider's ownership as the individual or companies that have a list of their ownership more than 5%.

The result of t-Statistic is used to prove the influence of independent variable to dependent variable, with assumption that other variables are constant.

Ho: the asymmetric information gives positive significant effect on capital structure.

Ha: the asymmetric information gives negative significant effect on capital structure.

4.2.3.2 Test of Firm Size as Proxy of Asymmetric Information

Ho₁ = Firm Size has no influence on capital structure

Ha₁ = Firm Size has positive influence on capital structure

Criteria for decision making:

If the coefficient is positive and Firm Size $< \alpha = 0.1$ so Ho₁ is rejected

If the coefficient is negative and Firm Size $> \alpha = 0.1$ so Ho₁ is accepted

Based on the table 4.6, the result of regression analysis is coefficient - 0.008362 and probability 0.8452. Because the coefficient of firm size value is negative and probability is $> \alpha$, it means that the researcher accepts Ho₁ and conversly reject Ha₁. From the result, firm size has no influence on capital structure. The rising of firm size does not always cause the rising of asymmetric

information, and conversely, the decreasing of firm size does not always cause the decreasing of asymmetric information.

In this research, firm size means carefulness of companies to accept information from the manager. Larger firms are more careful to control their firms because they always analyzed by investor and they always keep company image. So they tend to keep prevent their information from outsiders. Fama dan French (2002) said that larger firms have less of asymmetric information rather than small firms because the manager in larger firms always observed by investor, so they are more careful to publish information.

4.2.3.3 Test of Insiders' Ownership as proxy of asymmetric information

H_{01} = Insiders ownership has no influence on capital structure

H_{a1} = Insiders ownership has positive influence on capital structure

Criteria for decision making:

If the coefficient is positive and Insiders ownership $< \alpha = 0.1$ so H_{01} is rejected

If the coefficient is negative and Insiders ownership $> \alpha = 0.1$ so H_{01} is accepted

Based on the table 4.6, the result of regression analysis is coefficient - 0.001062 and probability 0.5326. Because the coefficient of insiders ownership value is negative and probability is $> \alpha$, the researcher accepts H_{01} and conversly rejects H_{a1} . The meaning of the result is the insiders ownership has no influence on capital structure. The concentration of insiders' ownership does not always because the decreasing of asymmetric information, and conversely, the separated insiders' ownership does not always cause the increasing of asymmetric information.

When insiders' ownership is concentration there will be possibility to lower of asymmetric information between manager and outsider investor because communication between insiders ownership can do faster and accurately. And, if insiders' ownership is separate there will possibility to higher of asymmetric information because there are so many persons as the ownership, so not all of them know each other.

4.3 Implications

The findings of the determinant of capital structure may give several contributions and implications. For the researcher, the result of tangible assets, firm size, business risk, and insiders' ownership show that there are no significant effects on capital structure. There is only profitability that has significant effect to capital structure. With the information, companies' manager and outsiders investor become a consideration whenever they want to set their capital structure for a company.

For the financial managers, the findings of this research may help them to have some considerations in making optimum formula of capital structure by seeing from asymmetric information of firms. For the government, the findings may become consideration in making economic policy especially about investment policy and financing decision for a company. The government can make some rules of order to control the economic equilibrium in the country carefully.

CHAPTER V

CONCLUSION AND RECOMMENDATION

5.1 Conclusion of the Research

The purpose of this research is to provide empirical evidence that asymmetric information gives significant effect on capital structure of Indonesian LQ 45 companies listed in Jakarta Stock Exchange (JSX) for the period of 2003-2005. Based on the research objective, the statistical test, and analysis of the research that are described in the previous chapters, the researcher can conclude that firm size and insiders' ownership (both are proxy of asymmetric information) do not give any positive significant effect on the capital structure of Indonesian LQ 45 companies. So the statement is not proven.

Firm size as proxy of asymmetric information in this research does not positive influence on capital structure. It means that size of a firm gives no effect on capital structure. Whether a firm is included as large or small firms, it can conversely effect on capital structure. So, firm size is not good proxy of asymmetric information that can be applied in Indonesia.

And insiders' ownership as proxy of asymmetric information also does not positive influence on capital structure. It means that ownership of a firm gives no effect on capital structure. Insiders' ownership is also not good proxy of asymmetric information in Indonesia because most of firms in Indonesia, especially firms that include in LQ 45 firms, have higher insiders' ownership. So, it only gives little effect on capital structure. Based on the explanation above, the researcher can conclude that the asymmetric information gives negative

significant effect on capital structure of Indonesian LQ 45 companies is not proven.

5.2 Recommendation of the Research

After the completion of this research, the following recommendations are drawn:

- a. The period of the research for the next research can be extended for the longer period.
- b. Use another proxy of each variable by using another measurement which is relevant to the theory, such as profitability or tangible assets,
- c. Extend the sample of this research to other companies besides LQ companies, but all listed companies in Jakarta Stock Exchange,
- d. This research result hopefully can be used as a reference for other researchers to adequately develop or revise the research result.
- e. For the investors, use another proxy to see asymmetric information in the firms.
- f. The financial managers can share information to minimize asymmetric information in the firms.

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APPENDIX 1**The list of the research' sample of Indonesian LQ 45 Firms the period of 2003-2005****2003**

| | | |
|----|------|-------------------------------------|
| 1 | AALI | Astra Agro Lestari Tbk |
| 2 | ANTM | Aneka Tambang (Persero) Tbk |
| 3 | APEX | Apexindo Pratama Duta Tbk |
| 4 | ASGR | Astra Graphia Tbk |
| 5 | ASII | Astra International Tbk |
| 6 | AUTO | Astra Otoparts Tbk |
| 7 | BBCA | Bank Central Asia Tbk |
| 8 | BBNI | Bank Negara Indonesia Tbk |
| 9 | BKSW | Bank Kesawan Tbk |
| 10 | BMTR | Bimantara Citra Tbk |
| 11 | CMNP | Citra Marga Nusaphala Persada Tbk |
| 12 | DNKS | Dankos Laboratories Tbk |
| 13 | DYNA | Dynaplast Tbk |
| 14 | GGRM | Gudang Garam Tbk |
| 15 | GJTL | Gajah Tunggal Tbk |
| 16 | HMSP | HM Sampoerna Tbk |
| 17 | IDSR | Indosiar Visual Mandiri Tbk |
| 18 | INAF | Indofarma Tbk |
| 19 | INCO | International Nickel Ind .Tbk |
| 20 | INDF | Indofood Sukses Makmur Tbk |
| 21 | INDR | Indorama Syntetics Tbk |
| 22 | INKP | Indah Kiat Pulp & Paper Tbk |
| 23 | INTP | Indocement Tunggul Prakasa Tbk |
| 24 | ISAT | Indosat Tbk |
| 25 | JIHD | Jakarta Int'l Hotel & Dev. Tbk |
| 26 | KAEF | Kimia Farma Tbk |
| 27 | KLBF | Kalbe Farma Tbk |
| 28 | LMAS | Limas Stokhomindo Tbk |
| 29 | MEDC | Medco Energi International Tbk |
| 30 | MLPL | Multipolar Tbk |
| 31 | MPPA | Matahari Putra Prima Tbk |
| 32 | NISP | Bank NISP Tbk |
| 33 | PNBN | Bank Pan Indonesia Tbk |
| 34 | PTBA | Tambang Batubara Bukit Asam Tbk |
| 35 | RALS | Ramayana Lestari Sentosa Tbk |
| 36 | RMBA | Bentoel International Investama Tbk |
| 37 | SCMA | Surya Citra Media Tbk |
| 38 | SMCB | Semen Cibinong Tbk |
| 39 | SMGR | Semen Gresik (Persero) Tbk |

| | | |
|----|------|-------------------------------|
| 40 | TINS | Timah Tbk |
| 41 | TKIM | Pabrik Kertas Tjiwi Kimia Tbk |
| 42 | TLKM | Telekomunikasi Indonesia Tbk |
| 43 | TSPC | Tempo Scan Pacific Tbk |
| 44 | UNTR | United Tractors Tbk |
| 45 | UNVR | Unilever Indonesia Tbk |

2004

| | | |
|----|------|--|
| 1 | AALI | PT Astra Agro Lestari Tbk. |
| 2 | ANTM | PT Aneka Tambang (Persero) Tbk |
| 3 | ASII | PT Astra International Tbk. |
| 4 | AUTO | PT Astra Otoparts Tbk. |
| 5 | BBCA | PT Bank Central Asia Tbk. |
| 6 | BDMN | PT Bank Danamon Tbk. |
| 7 | BLTA | PT Berlian Laju Tankers Tbk. |
| 8 | BNBR | PT Bakrie & Brothers Tbk. |
| 9 | BNGA | PT Bank Niaga Tbk. |
| 10 | BNII | PT Bank Internasional Indonesi |
| 11 | BRPT | PT Barito Pacific Timber Tbk. |
| 12 | BUMI | PT Bumi Resources Tbk. |
| 13 | CTRS | PT Ciputra Surya Tbk. |
| 14 | DNKS | PT Dankos Laboratories Tbk. |
| 15 | EPMT | PT Enseval Putera Megatrading |
| 16 | GGRM | PT Gudang Garam Tbk. |
| 17 | GJTL | PT Gajah Tunggal Tbk. |
| 18 | HMSP | PT Hanjaya Mandala Sampoerna T |
| 19 | IDSR | PT Indosiar Visual Mandiri Tbk |
| 20 | INCO | PT International Nickel Indone |
| 21 | INDF | PT Indofood Sukses Makmur Tbk. |
| 22 | INKP | PT Indah Kiat Pulp & Paper Corporation |
| 23 | INTP | PT Indocement Tunggal Prakarsa |
| 24 | ISAT | PT Indonesian Satellite Corporation |
| 25 | JIHD | PT Jakarta International Hotel |
| 26 | KIJA | PT Kawasan Industri Jababeka T |
| 27 | KLBF | PT Kalbe Farma Tbk. |
| 28 | LMAS | PT Limas Centric Indonesia Tbk |
| 29 | LPBN | PT Lippo Bank Tbk. |
| 30 | MPPA | PT Matahari Putra Prima Tbk. |
| 31 | NISP | PT Bank NISP Tbk. |
| 32 | PNBN | PT Pan Indonesia (Panin) Bank |
| 33 | PNIN | PT Panin Insurance Tbk. |
| 34 | PTBA | PT Tambang Batubara Bukit Asam |
| 35 | RALS | PT Ramayana Lestari Sentosa Tb |
| 36 | RMBA | PT Bantoel International Inves |
| 37 | SMCB | PT Semen Cibinong Tbk. |

| | | |
|----|------|--------------------------------|
| 38 | SMGR | PT Semen Gresik (Persero) Tbk. |
| 39 | SMRA | PT Summarecon Agung Tbk. |
| 40 | TINS | PT Tambang Timah (Persero) Tbk |
| 41 | TKIM | PT Pabrik Kertas Tjiwi Kimia T |
| 42 | TLKM | PT Telekomunikasi Indonesia (P |
| 43 | TSPC | PT Tempo Scan Pacific Tbk. |
| 44 | UNTR | PT United Tractor Tbk. |
| 45 | UNVR | PT Unilever Indonesia Tbk. |

2005

| | | |
|----|------|--------------------------------|
| 1 | AALI | PT Astra Agro Lestari Tbk. |
| 2 | ADHI | PT Adhi Karya (Persero) Tbk |
| 3 | ADMG | PT Polychem Indonesia Tbk |
| 4 | ANTM | PT Aneka Tambang (Persero) Tbk |
| 5 | ASII | PT Astra International Tbk. |
| 6 | BBCA | PT Bank Central Asia Tbk. |
| 7 | BBRI | PT Bank Rakyat Indonesia Tbk. |
| 8 | BDMN | PT Bank Danamon Tbk. |
| 9 | BLTA | PT Berlian Laju Tankers Tbk. |
| 10 | BMRI | PT Bank Mandiri Tbk |
| 11 | BNBR | PT Bakrie & Brothers Tbk. |
| 12 | BNGA | PT Bank Niaga Tbk. |
| 13 | BNII | PT Bank Internasional Indonesi |
| 14 | BNLI | PT Bank Permata Tbk |
| 15 | BRPT | PT Barito Pacific Timber Tbk. |
| 16 | BUMI | PT Bumi Resources Tbk. |
| 17 | CMNP | PT Citra Marga Nusaphala Persa |
| 18 | ENRG | PT Energi Mega Persada |
| 19 | GGRM | PT Gudang Garam Tbk. |
| 20 | GJTL | PT Gajah Tunggal Tbk. |
| 21 | INCO | PT International Nickel Indone |
| 22 | INDF | PT Indofood Sukses Makmur Tbk. |
| 23 | INKP | PT Indah Kiat Pulp & Paper Cor |
| 24 | INTP | PT Indocement Tunggal Prakarsa |
| 25 | ISAT | PT Indonesian Satellite Corpor |
| 26 | JIHD | PT Jakarta International Hotel |
| 27 | KIJA | PT Kawasan Industri Jababeka T |
| 28 | KLBF | PT Kalbe Farma Tbk. |
| 29 | LPBN | PT Lippo Bank Tbk. |
| 30 | LSIP | PT Perusahaan Perkebunan Londo |
| 31 | MEDC | PT Medco Energi Corporation Tb |
| 32 | PGAS | PT Perusahaan Gas Negara Tbk. |
| 33 | PLAS | PT Plastpack Prima Industri Tb |
| 34 | PBNB | PT Pan Indonesia (Panin) Bank |
| 35 | PNLF | PT Panin Life Tbk. |

| | | |
|----|------|--------------------------------|
| 36 | PTBA | PT Tambang Batubara Bukit Asam |
| 37 | RALS | PT Ramayana Lestari Sentosa Tb |
| 38 | SMCB | PT Semen Cibinong Tbk. |
| 39 | SMRA | PT Summarecon Agung Tbk. |
| 40 | TINS | PT Tambang Timah (Persero) Tbk |
| 41 | TKIM | PT Pabrik Kertas Tjiwi Kimia T |
| 42 | TLKM | PT Telekomunikasi Indonesia (P |
| 43 | UNSP | PT Bakrie Sumatra Plantations |
| 44 | UNTR | PT United Tractor Tbk. |
| 45 | UNVR | PT Unilever Indonesia Tbk. |

The Final of Research Sample

| NO | CODE | COMPANIES |
|----|------|----------------------------------|
| 1 | AALI | ASTRA AGRO LESTARI TBK |
| 2 | ANTM | ANEKA TAMBANG (PERSERO) TBK |
| 3 | ASII | ASTRA INTERNATIONAL TBK |
| 4 | BBCA | BANK CENTRAL ASIA TBK |
| 5 | GGRM | GUDANG GARAM TBK |
| 6 | GJTL | GAJAH TUNGGAL TBK |
| 7 | HMSP | H M SAMPOERNA TBK |
| 8 | INDF | INDOFOOD SUKSES MAKMUR TBK |
| 9 | INKP | INDAH KIAT PULP & PAPER CORP |
| 10 | INTP | INDOCEMENT TUNGGAL PERKASA TBK |
| 11 | ISAT | INDONESIAN SATELLITE CORPORATION |
| 12 | JIHD | JAKARTA INTERNATIONAL HOTEL TBK |
| 13 | KLBF | KALBE FARMA TBK |
| 14 | PNBN | PAN INDONESIA (PANIN) BANK TBK |
| 15 | RALS | RAMAYANA LESTARI SENTOSA TBK |
| 16 | SMCB | SEMEN CIBINONG TBK |
| 17 | TINS | TAMBANG TIMAH (PERSERO) TBK |

| | | |
|----|------|--|
| 18 | TKIM | PABRIK KERTAS TJIWI KIMIA TBK |
| 19 | TLKM | TELEKOMUNIKASI INDONESIA (PERSERO) TBK |
| 20 | UNTR | UNITED TRACTOR TBK |
| 21 | UNVR | UNILEVER INDONESIA TBK |



APPENDIX 2

The calculation of measurement variables

2003

| List of Companies | CS | Prof | Size | T.A | Risk | OI |
|---------------------------------------|------|-------|-------|------|--------|-------|
| PT Astra Agro Lestari Tbk. | 0,45 | 9,87 | 14,86 | 0,33 | 1,24 | 79,94 |
| PT Aneka Tambang (Persero) Tbk | 0,59 | 5,24 | 15,28 | 0,35 | 1,29 | 0,00 |
| PT Astra International Tbk. | 0,51 | 16,13 | 17,13 | 0,22 | 7,07 | 47,64 |
| PT Bank Central Asia Tbk. | 0,91 | 1,79 | 18,71 | 0,02 | 0,74 | 53,02 |
| PT Gudang Garam Tbk. | 0,37 | 10,60 | 16,67 | 0,28 | -1,20 | 73,86 |
| PT Gajah Tunggal Tbk. | 0,90 | 6,94 | 16,31 | 0,54 | -21,82 | 70,11 |
| PT Hanjaya Mandala Sampoerna Tbk | 0,41 | 13,80 | 16,14 | 0,21 | 4,77 | 46,73 |
| PT Indofood Sukses Makmur Tbk. | 0,69 | 3,94 | 16,54 | 0,38 | -3,20 | 51,53 |
| PT Indah Kiat Pulp & Paper Cor | 0,70 | -5,26 | 15,51 | 0,66 | 1,08 | 60,95 |
| PT Indocement Tunggul Prakarsa | 0,55 | 6,61 | 16,13 | 0,80 | -8,14 | 78,17 |
| PT Indonesian Satellite Corpor | 0,53 | 23,34 | 17,08 | 0,16 | 0,84 | 41,08 |
| PT Jakarta International Hotel | 0,75 | -1,78 | 15,26 | 0,21 | -52,08 | 28,76 |
| PT Kalbe Farma Tbk. | 0,58 | 13,19 | 14,71 | 0,21 | 1,72 | 52,60 |
| PT Pan Indonesia (Panin) Bank | 0,80 | 2,43 | 16,75 | 0,06 | -9,56 | 71,18 |
| PT Ramayana Lestari Sentosa Tbk | 0,39 | 12,04 | 14,74 | 0,20 | 0,45 | 67,78 |
| PT Semen Cibinong Tbk. | 0,65 | 2,28 | 15,85 | 0,87 | -4,58 | 0,00 |
| PT Tambang Timah (Persero) Tbk | 0,29 | 3,87 | 14,50 | 0,21 | 9,95 | 63,35 |
| PT Pabrik Kertas Tjiwi Kimia Tbk | 0,80 | -1,43 | 14,57 | 0,58 | -3,72 | 14,69 |
| PT Telekomunikasi Indonesia (Persero) | 0,58 | 12,11 | 17,73 | 0,69 | -0,08 | 56,52 |
| PT United Tractor Tbk. | 0,74 | 5,66 | 15,62 | 0,32 | 231,29 | 84,90 |
| PT Unilever Indonesia Tbk. | 0,38 | 37,96 | 15,04 | 0,26 | 1,99 | 17,38 |

2004

| List of Companies | CS | Prof | Size | T.A | Risk | OI |
|----------------------------------|------|-------|-------|------|--------|-------|
| PT Astra Agro Lestari Tbk. | 0,36 | 23,67 | 15,03 | 0,31 | 3,79 | 79,94 |
| PT Aneka Tambang (Persero) Tbk | 0,60 | 13,41 | 15,61 | 0,45 | 7,77 | 0,00 |
| PT Astra International Tbk. | 0,50 | 13,81 | 17,48 | 0,22 | 0,32 | 47,64 |
| PT Bank Central Asia Tbk. | 0,91 | 2,14 | 18,82 | 0,02 | -15,69 | 53,02 |
| PT Gudang Garam Tbk. | 0,41 | 8,69 | 16,84 | 0,34 | -0,45 | 73,86 |
| PT Gajah Tunggal Tbk. | 0,73 | 7,54 | 15,66 | 0,50 | -3,03 | 70,11 |
| PT Hanjaya Mandala Sampoerna Tbk | 0,56 | 17,03 | 16,28 | 0,19 | 1,93 | 46,73 |
| PT Indofood Sukses Makmur Tbk. | 0,68 | 2,47 | 16,57 | 0,38 | -61,75 | 51,53 |
| PT Indah Kiat Pulp & Paper Cor | 0,62 | 7,30 | 15,50 | 0,67 | -3,53 | 60,95 |
| PT Indocement Tunggul Prakarsa | 0,52 | 1,19 | 16,09 | 0,79 | -7,04 | 78,17 |
| PT Indonesian Satellite Corpor | 0,52 | 5,86 | 17,14 | 0,62 | 1,88 | 41,08 |
| PT Jakarta International Hotel | 0,59 | 10,80 | 15,20 | 0,20 | 4,05 | 28,76 |
| PT Kalbe Farma Tbk. | 0,54 | 10,65 | 15,26 | 0,16 | 0,72 | 52,60 |
| PT Pan Indonesia (Panin) Bank | 0,80 | 3,66 | 16,99 | 0,05 | 16,90 | 71,18 |
| PT Ramayana Lestari Sentosa Tbk | 0,38 | 12,18 | 14,75 | 0,18 | 0,40 | 67,78 |
| PT Semen Cibinong Tbk. | 0,71 | -7,09 | 15,83 | 0,85 | -70,99 | 0,00 |
| PT Tambang Timah (Persero) Tbk | 0,38 | 7,36 | 14,70 | 0,18 | 2,32 | 63,35 |

| | | | | | | |
|---------------------------------------|------|-------|-------|------|-------|-------|
| PT Pabrik Kertas Tjiwi Kimia Tbk | 0,71 | 8,75 | 14,56 | 0,56 | -0,22 | 14,69 |
| PT Telekomunikasi Indonesia (Persero) | 0,59 | 11,77 | 17,84 | 0,70 | 0,45 | 56,52 |
| PT United Tractor Tbk. | 0,54 | 16,24 | 15,73 | 0,35 | 4,66 | 84,90 |
| PT Unilever Indonesia Tbk. | 0,38 | 40,15 | 15,11 | 0,37 | 1,46 | 17,38 |

2005

| List of Companies | CS | Prof | Size | T.A | Risk | OI |
|---------------------------------------|------|--------|-------|------|--------|-------|
| PT Astra Agro Lestari Tbk. | 0,15 | 24,76 | 14,98 | 0,41 | 2,36 | 79,94 |
| PT Aneka Tambang (Persero) Tbk | 0,53 | 13,15 | 15,67 | 0,60 | 0,23 | 0,00 |
| PT Astra International Tbk. | 0,48 | 11,61 | 17,67 | 0,24 | 0,07 | 47,64 |
| PT Bank Central Asia Tbk. | 0,89 | 2,40 | 18,83 | 0,02 | 0,80 | 53,02 |
| PT Gudang Garam Tbk. | 0,41 | 8,54 | 16,91 | 0,33 | 2,38 | 73,86 |
| PT Gajah Tunggal Tbk. | 0,73 | 4,64 | 15,83 | 0,43 | 0,91 | 70,11 |
| PT Hanjaya Mandala Sampoerna Tbk | 0,60 | 19,97 | 16,29 | 0,20 | 0,55 | 46,73 |
| PT Indofood Sukses Makmur Tbk. | 0,68 | 0,84 | 16,51 | 0,41 | -10,73 | 51,53 |
| PT Indah Kiat Pulp & Paper Cor | 0,61 | 0,15 | 15,47 | 0,68 | 193,44 | 60,95 |
| PT Indocement Tunggal Prakarsa | 0,47 | 7,02 | 16,17 | 0,74 | 22,87 | 78,17 |
| PT Indonesian Satellite Corpor | 0,56 | 4,95 | 17,31 | 0,66 | -0,11 | 41,08 |
| PT Jakarta International Hotel | 4,65 | -45,07 | 12,66 | 2,39 | -0,65 | 28,76 |
| PT Kalbe Farma Tbk. | 0,39 | 13,82 | 15,37 | 0,18 | 1,78 | 52,60 |
| PT Pan Indonesia (Panin) Bank | 0,87 | 1,37 | 17,42 | 0,03 | -2,41 | 71,18 |
| PT Ramayana Lestari Sentosa Tbk | 0,25 | 12,93 | 14,66 | 0,24 | -0,40 | 67,78 |
| PT Semen Cibinong Tbk. | 0,75 | -4,56 | 15,81 | 0,83 | -2,36 | 0,00 |
| PT Tambang Timah (Persero) Tbk | 0,44 | 3,91 | 14,83 | 0,18 | -1,61 | 63,35 |
| PT Pabrik Kertas Tjiwi Kimia Tbk | 0,70 | 0,86 | 14,56 | 0,56 | -66,26 | 14,69 |
| PT Telekomunikasi Indonesia (Persero) | 0,52 | 12,86 | 17,95 | 0,01 | 1,18 | 56,52 |
| PT United Tractor Tbk. | 0,61 | 9,88 | 16,18 | 0,41 | 0,14 | 84,90 |
| PT Unilever Indonesia Tbk. | 0,43 | 37,49 | 15,16 | 0,04 | -0,16 | 17,38 |