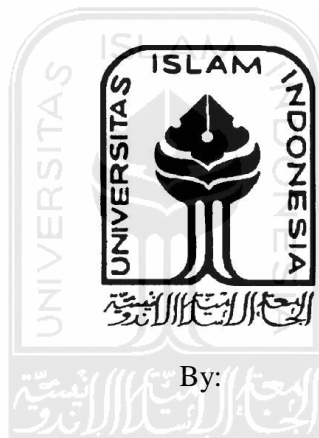# MANAGERIAL AND INSTITUTIONAL OWNERSHIP

THE DIFFERENCES OF AGENCY COST LEVEL
AND FIRM PERFORMANCES

A THESIS

Presented as a Partial fulfillment of the Requirements

to Obtain the Bachelor Degree in Accounting Department
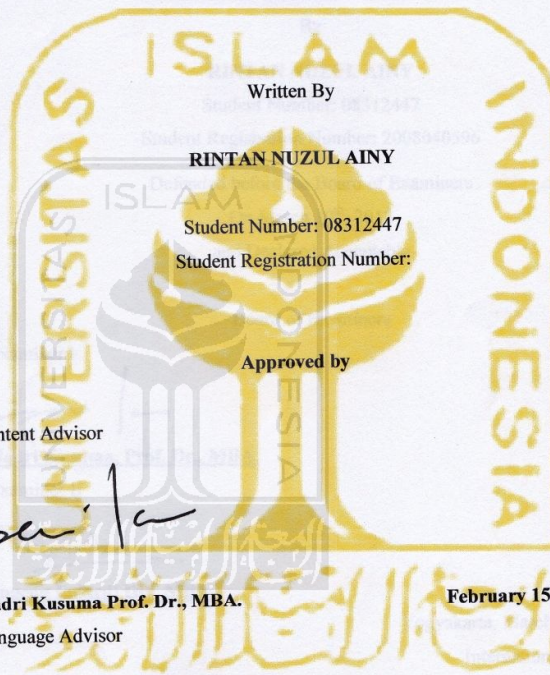
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FACULTY OF ECONOMICS
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LEGALIZATION PAGE

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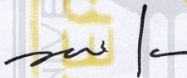Student Registration Number: 2008040596

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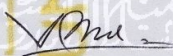Board of Examiners

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DECLARATION OF AUTHENTICITY

Herein I declare the originality of this thesis; I have not presented anyone else's work to obtain my university degree, nor have I presented anyone else's words, ideas or expression without acknowledgement. All quotations are cited and listed in the bibliography of this thesis.

If I the future this statement is proven to be false, I am willing to accept any sanction complying with the determined regulation for its consequence.

Yogyakarta, February 14th, 2012

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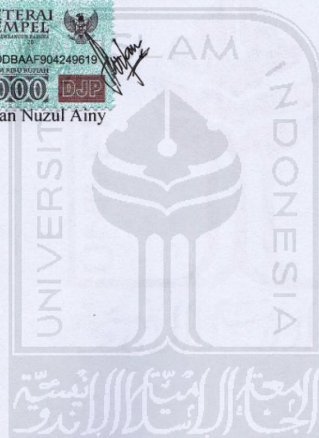
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بِسْمِ اللهِ الرّحْمٰنِ الرّحِيْمِ

Assalamualaikum Wr. Wb

Alhamdulillahi rabbil'alamin, all praises be to Allah SWT for blessing and guiding me so that I can be here for finishing my study, and for giving me great families, lectures, and friends who always support me to finish this thesis.

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The writer realizes that this thesis is still far from being perfect. The last but not the least, the writer hopes that this research will be useful to inspire the future research and enrich knowledge related to this topic. Amin.

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Yogyakarta, February 14th, 2012

Rintan Nuzul Ainy

This thesis is dedicated to:

1. My father, Ir. H. Agus Utomo, M.Si

2. My mother, Dra. Hj. Nur Fauziah, M.M

3. My sisters

   Mahardhini Fuadillah, SE

   Faradhina Azzahra

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ABSTRACT

This study is about an institutional and managerial ownership and focuses on analyzing the difference of agency cost and firm performance in companies with institutional and managerial ownership. This study is aimed to examine the influence of the existence of institutional and managerial ownership in agency cost and firm performances aspects.

The data collection used by the researcher is the purposive sampling method with the samples manufacturing companies listed in Indonesia Stock Exchange in 2006 -2010 which are 47 manufacturing companies with institutional ownership and 39 manufacturing companies with managerial ownership.

The results of this study indicated that there are significant differences of expense ratio and firm values between manufacturing companies with institutional and managerial ownerships. While variables that did not show the significant differences in companies with institutional and managerial ownership are asset utilization ratio, ROE, ROA, and stock return.

Key words: *Manufacturing Companies, Managerial Ownership, Institutional Ownership, Agency Cost, Firm Performances*

CHAPTER I

INTRODUCTION

1.1 Background of Study

Recently, some world researchers are interested to analyze the agency problems among companies in the world. The basic idea of agency cost was explained by Berle and Means (1932). They said that agency cost might be incurred in the separation of ownership and control due to inconsistent interest of management and shareholder. Jensen and Meckling (1976) also suggested that the incomplete contractual relationship between the principal (stockholder) and the agent (management) might cause the agency problem. This kind of things might happen in a multinational company or company that already goes public. According to Taswan (2003), a shareholder can trust their capital in a company to the professionals or managerial or insiders (or we can call as agents). Shareholder who fully trust them will act for maximizing the wealth of the owner (here means the shareholder). The effect of the separation between ownership and controlling function is the controllers have rights to control the run of company. Such as controllers (management) have rights to use funds and/or take others' decision for and by the name of owners.

The right given by the shareholder to the manager can be misused. The managers might act for their own benefit. If it happens, the conflict of interest

will occur. Managers may have different needs and objectives that are sometimes in contrast with the company's main objectives or with the interests of shareholder (owners). Of course the shareholder may dislike the behavior of the manager because they think that it will cause losses to the company. Wang, George Yungehih (2010) said that the agency problem caused by the management would cause a loss in stockholders' wealth in the following ways: First, management, from the aspect of self-interest motive, would increase perquisite consumption and shirking behavior, which in turns led to an increase in agency costs. Second, management might not choose the highest NPV investment project, but the one that maximized his own self-interest, which would expose stockholders to unnecessary investment risk. Therefore, management's decision might cause the firm's loss in value because the best project was not chosen.

The interest conflict also can occur because of the excess cash flow. The excess cash flow will be over invested or used as the consumption that is not related to the main operation of the company, or we can call as excessive perquisites. Keown (2000) said that a conflict could happen in the company when shareholders prefer to invest in high risks because they hope high returns from it. Yet, the managers prefer to invest in low risk investment to safe their position.

Managers have more information about the company rather than shareholders because they directly run the company. Similar with the opinion of Sukartha (2005) said that a manager as the controller of the company

surely will have information better than the shareholder. The shareholder (as the principal) is worried that the information delivered by the manager is not complete or not suitable with the real information. This situation is called an information asymmetry. The information asymmetry always gives more benefits for managers because they will have more spaces to make decisions only for their own benefit. This can become another impact of separation duties of owner and controller.

Another impact of the separate functions between owner and controller is that the authority of controller (manager) to maximize the profit. Of course the shareholder will be happy if they get optimum profits, however managers' behavior will consider maximizing the profit for them self with the cost that expense to shareholder as the owner. So the manager will make decision which is give more profit for him/her without calculate the cost because the cost will be charged to the shareholder.

In general, the agency problem may occur because managers do the moral hazard in maximizing their own benefits by sacrificing the interests of the principal (shareholder). According to Birghma and Gapenski (1999), the agency conflict in a company can occur because of the relationship between shareholder and manager; manager and creditor; manager, shareholder, and creditor. The conflict of interests between them can cause the additional cost called the agency cost. It is because the company needs a monitoring mechanism to balance the difference interests among parties.

Some experts have already given several alternatives to solve these

agency problems. One of them is by conducting the managerial ownership in their governance structure. With the existence of the managerial ownership, it hopes that the manager will act based on the interests of shareholders. It hopes that this will motivate the manager to improve the company performance and will give positive impacts on the firm values (Siallagan dan Machfoedz, 2006). Here, managers do not only act as professionals who get salary, but also as the owner of the company. The manager will be more responsible to all decision making that will affect the existence of the company. Jensen and Meckling (1976) suggested that the managerial ownership serves to align the interest of managers and outside shareholders. Siallagan and Machfoedz (2006) also said that the bigger the managerial ownership in the company, the more efforts made by the management to improve their performance for the interests of shareholders and also for themselves.

According to Suranta and Midiastuty (2004), the managerial ownership is a share proportion that can be owned by the manager. The manager will think twice when he takes a decision because every fund used will affect the amount of dividends, related to the capital. Ben and Jameleddine (2010) said that managerial ownership property represents a mechanism that permits to reduce the cost of control supported by shareholders because it is supposed to reduce the managerial opportunism.

There were some research stated that there is a relationship between managerial ownership and firm performance. For example, Ben and

Jameleddine (2010) in their journal of "Interactions between Free Cash Flow, Debt Policy, and Structure of Governance", they said about entrenchment theory, when the managerial ownership becomes very high, it becomes sometimes difficult to oust them even though their performance is judged dissatisfactory. It means that proportion of managerial ownership is considered can influence the firm performance. Similar with the results of Ben and Jameleddine, Mork, Sheilfer, and Vishny (1998) proposed a model in which increased managerial ownership leads to entrenchment, where the manager will indulge in non-value-maximizing behavior. He also said that the value of the firm would decrease if management ownership increases. However, another perspective was found by Agha, Mahmoud (2008). In his research, he found that firm performance would improve if managerial ownership increase, related to investment and dividend policy. This research support the previous literature made by Wahyudi and Pawestri (2006). They stated that the managerial ownership has a positive relationship with firm performance. Yet, other researchers said that managerial ownership does not have any role in improving the firm performance. This hypothesis was stated by Haat, Mohd Hassan Che (2008); and Sujoko and Subintoro (2007). In conclusion, the researcher found that the result of the searched literatures can be divided into two: (1) the managerial ownership has a negative relationship with the firm performance, and (2) the managerial ownership has a positive relationship with the firm performance.

Another way to reduce the agency cost that may occur because of the conflict of interest inside the company was by holding the institutional ownership. According to OECD (Organization for Economic Cooperation and Development), the institutional investors regroup four types of institutions; funds of pension, the mutual funds or investment society, companies of insurances and the other institutional investor form as foundations or Private investment partnerships. OECD itself is an international economic organization of 34 countries founded in 1961 to stimulate economic progress and world trade. It is a forum of countries committed to democracy and the market economy, providing a platform to compare policy experiences, seek answers to common problems, identify good practices, and co-ordinate domestic and international policies of its members. According to Faizal (2004), company with high institutional ownership indicates the ability to monitor management. It means that bigger the institutional ownership in a company, then it makes more efficient in using the company asset and protect it from the moral hazard behavior of the manager.

The higher proportion of the institutional ownership in a company, it will reduce the opportunistic behavior of the manager that can reduce the agency cost and hope it will improve the firm values (Wahyudi and Pawestri, 2006). If the ownership concentration in institution is big, the shareholder can monitor the management more effectively and at the end it will give positive impact to the firm value. High controlling and monitoring will minimize the

inappropriate attitude of manager that is considered as the factors that can decrease the firm value. Lins (2002) said that the ownership concentration of the outside parties would give positive impacts on the firm values.

Considering the explanation above, the researcher is interested to analyze the difference of agency cost level and firm performance between the companies with managerial ownership and institutional ownership in their structure. Agency cost level here means the difference amount of agency cost that proxy with two ratios; expense ratio and asset utilization ratio; and firm performance here is divided into three proxies; firm value, operating performance, and stock return. The previous research has been conducted by Sinaga in 2008. He analyzed the difference of company with and without managerial ownership used the proxy of agency cost. His research concluded that there is no difference of agency cost level (calculated by free cash flow) between company with and without managerial ownership. Hertya, et. al stated that managerial ownership has a negative but not significant relationship with agency cost, which is different with institutional ownership that has a negative and significant relationship with agency cost in Indonesian Company (2001-2005). Using different variables, Wien Ika Permanasari found in her research in 2010 that both managerial and institutional do not influence the firm performance. Yet, another research has been conducted by Susanti (2009) that managerial ownership had direct influences to firm performance but institutional had not. Because of that, the researcher is interesting to compare variables of managerial and institutional ownership by

using agency cost and firm performance as the dependent variables. The researcher also considers that the structure of governance has a strong relationship with decision policy in a company, including in solving the agency problem, and absolutely it can influence the firm performance.

Managerial ownership in this research means the existence of managers who own the stock in the company, without considering the proportion of their owned share. While institutional ownership means the existence of institution in the ownership structure of the company, without considering the proportion owned. The researcher would like to do this research to know the different level of agency and the firm performances in companies with managerial and institutional ownership. The researcher will examine whether companies with managerial ownership have higher or lower agency costs, which is proxy with two ratios; expense ratio and asset utilization ratio. For the firm performance, the researcher divides it into three categories; operating performance firm value, and stock return.

1.2 Problem Identification

The basic problem to be analyzed and discussed is the differences between company with the managerial ownership and institutional ownership. This research would like to examine the differences of those companies from the agency cost and firm performance aspects. If there are differences between them, the researcher wants to know how far the types of ownership influencing those companies' themselves.

1.3 Problem Formulation

According to the background of the study, this research will investigate:

1. Are there any differences of the level of agency cost between companies with institutional and managerial ownership?

2. Are there any differences of firm performances between companies with institutional and managerial ownership?

1.4 Problem Limitation

In doing the research, researcher makes several limitations. It is important as a means of restricting the scope and size of proposed study. The research is focused on Indonesian firms with some scopes of limitation, which are:

1. The companies are included in the list of manufacturing company listed in Indonesia Stock Exchange data from the period of 2006-2010.

2. The companies reported the complete financial report and published it in Indonesia Capital Market Directory (ICMD) from the period of 2007-2011.

3. The companies should have the percentage of managerial or institutional ownership in their governance structure.

4. The study is concentrated on financial statement information especially the information about agency cost and firm performance.

5. This research includes two dependent variables which proxy into four variables and two independent variables. The dependent variables are Selling General Administrative as the proxy of agency cost and; firm

value, operating performance, and stock return as the proxy of firm performance. The independent variables are managerial ownership and institutional ownership.

1.5 Research Objectives

Before the researcher conducts this research, there have been several researches about the agency cost and ownership structure. This thesis has the main objective to examine whether there are differences on both agency cost and firm performance or not in the companies with managerial ownership and companies with institutional ownership. The researcher wants to observe whether it can be proved that the independent variable influences the dependent variable or not.

1.6 Research Contribution

This research hopefully will give contributions for some parties, which are:

1. Investors

This research hopefully can be used as the information and suggestion in minimizing the conflicts between the investor and manager of the company.

2. Company

This research hopefully can become the consideration for company in decision-making, so they can minimize the agency cost and increase the wealth of their investors.

3. Students and academicians

The information in this research hopefully can be used as the additional knowledge, for the references material for the future research, and to improve the ability in analyzing events that related with the agency problem.

4. Researcher

By conducting this research, hopefully the researcher can improve her knowledge especially those related to the agency problems in Indonesia.

1.7 Systematical Writing

The systematical writing of this research is as follows:

Chapter I: Introduction

It consists of background of study, problem identification, problem formulation, problem limitation, research objective, research contribution, and systematical writing.

Chapter II: Theoretical Review

It is about the theoretical review of agency cost, firm performance, managerial ownership, and institutional ownership; conceptual framework and hypothesis formulation.

Chapter III: Research Method

This chapter consists of methodology, research subject, types of data, method of data collecting, population and sample, research variables, research procedure, and hypothesis testing.

Chapter IV: Data Analysis

It presents the process of analyzing data and testing hypothesis related to the hypothesis already made by the researcher.

Chapter V: Conclusion and Recommendations

This chapter presents the conclusion of this research's result and the brief explanation of it. It also explains implications, limitations, and also suggestions for future research.
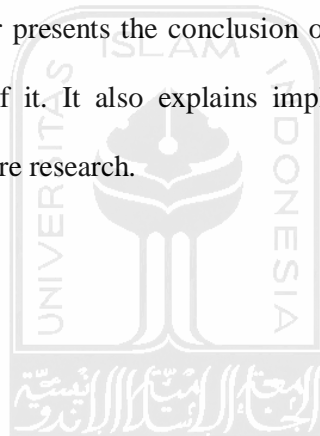
CHAPTER II

THEORETICAL REVIEW

2.1 Agency Cost

The agency problem was raised by Berle and Means (1932) who argued that agency costs might be incurred in the separation of ownership and control due to the inconsistent interest of management and stockholders. Jensen and Meckling (1976) said that the agency problem might occur because of incomplete relationship between manager as the agent and shareholder as the principal. They also argued that there were at least three forms of agency costs; monitoring cost of management's actions, bonding cost of restrictive covenants, and residual loss due to suboptimal management's decisions. In economics, the agency problem treats the difficulties that arise under conditions of incomplete and asymmetric information when a principal hires an agent, such as the problem of potential moral hazard and conflict of interest, in as much as the principal is—presumably—hiring the agent to pursue the principal's interests. Every agent looks for the maximization of his self interest, from where the apparition of conflicts (Ross, 1977).

There are several variables used by world researchers in analyzing how to mitigate agency costs. Hart and Moore (1995); Lang and al (1996); Gul and Jaggi (1999) are several researchers who analyzed debt or leverage as the variable to resolve agency problems. Different researchers such as Lintner

(1956); Miller and Modligliani (1961) analyzed the relationship between dividend policy and agency cost faced by companies. The other researchers examine the relationship of governance structure and agency problems. The ownership concentration, managerial ownership, and institutional ownership are three attributes that characterize the ownership structure of a firm (Ben and Jemeleddine, 2010). Leland and Pyle (1977); Hermalin and Weisbach (1991); Himmelberg. et. al (1999) are several researchers who consider that managerial ownership as evident solution to agency conflicts that permits to align interest of managers on those of shareholders. However, there were also several studies confirmed that there were positive role of the institutional investors in the corporate governance (related with agency problems), such as McConnel and Servaes (1990); Brickley, Lease and Smith (1998).

2.2 Firm Performance

Relationship between agency cost and, especially ownership structure may impacts to the firm performance. It can happen because the structure of ownership may influence all decision making in company that indirectly determine the firm performance. According to Demzets (1983), he said that since we observe many successful public companies with diffused share-ownership, clearly there must be offsetting benefits, for example, better risk bearing. Also, for reasons related to performance-based compensation and insider information, firm performance could be a determinant of ownership. For example, superior firm performance leads to an increase in the value of

stock options owned by management, which, if exercised, would increase their share ownership. Also, if there are serious divergences between insider and market expectations of future firm performance then insiders have an incentive to adjust their ownership in relation to the expected future performance. Other researchers directly analyze the relationship of managerial and institutional ownership with the firm performance. Pound (1988) said that institutional investors might have a positive impact on corporate performance. It can happen because institutional investor more active in monitoring and controlling the management behavior. If there were a little bit mistake of the manager, institutional investors will directly argue to the manager in order to defend their interests in case of dissatisfaction. Supporting the statement, Henry (2010) argued that the institutional shareholder has a larger experience and they are more efficient monitors that the minority shareholders on the plane cost of control. To show the relationship between managerial ownership and firm performance, the research done by Morck, Shleifer, and Vishny (1998) stated that managerial ownership has a negative relationship with firm performance. The same result was also found by Ghosh (2007).

2.3 Managerial Ownership

The agency problems already discussed by many researchers in the world for several times. Even though it has been discussed, analyzed, and examined for many times, sometimes the results were not the same as the previous research. Related to the existence of managerial ownership in the structure of

governance in a company, some research found that there is a negative relationship between managerial ownership and the agency cost. For example, the researchers from Indonesia, Putra and Ratnadi (2007), concluded in his research of "Pengaruh Kebijakan Dividend dan Kepemilikan Mangerial terhadap Kos Keagenan" that the agency cost in the companies controlled by the managerial ownership is lower than the companies which are not controlled by the managerial ownership. It means that the companies with big managerial ownership have low agency conflict, which make the lower agency cost. On the other hand, companies without managerial ownership will have higher agency conflict, so they should face higher agency cost. Arman Saputra (2009) held a research similar with Putra and Ratnadi, to know the different levels of agency cost in Indonesian companies with and without managerial ownership in their governance structure. Yet, the result that he found was totally different. His research showed that there was no difference on the agency cost level between two characteristic companies.

Both researchers, Arman and Putra-Ratnadi, no one of them can prove the research held by Sukartha (2005) in "Pengaruh Manajemen Laba dan Kepemilikan pada Kesejahteraan Pemegang Saham Perusahaan Target Akuisisi". He used the sample of companies listed in the Jakarta Stock Exchange 1990-2005 (with several criteria). He found that the managerial ownership gave positive and significant influences to the wealth of shareholder (principal). It means that the bigger proportion of managerial ownership, the agency problem between manager and investor will be bigger.

Jensen and Meckling (1976) argued that large shareholders are more motivated and have stronger power to guarantee shareholder value maximization, by aligning the interests of managers and shareholders and therefore reduce agency cost. It means that they agree that managerial ownership can decrease the agency cost faced by companies. The survey was also conducted by Fleming, Heaney and McCosker (2005) towards companies in Aussie, from 1996 to 1998. The result of the survey was that the agency costs decrease as managerial and employee's equity holdings increase. They agreed that managerial ownership and agency cost have a negative relationship. Several research literatures also stated the same as Ben Moussa and Jameleddine (2011), Nekhili ,et al. (2009) and McKnight and Weir (2009).

Research about managerial ownership did not only conduct in the area of agency cost, but there were also several researchers analyzing the impact of managerial ownership to the performance of company itself. As mentioned before, managerial ownership is used to align the interest of managers and outside shareholder. It means that it is expected that managerial ownership can help the increase of the firm value by reducing the agency cost. Wahyudi and Pawesti (2006) stated that managerial ownership had influences in the firm performance while the institutional ownership had not. Morck, et al., and Mc Connel (2008); and Jensen and Meckling (1976) also said that the ownership structure influences the firm value. They said that there is a non-linier relationship between managerial ownership and firm performance.

2.4 Institutional Ownership

Some researchers argued that agency cost could be reduced by institutional ownership. According to OECD, the institutional investors regroup four types of institutions: fund of pension, the mutual funds or investment society, companies of insurances, and the other institutional investor form as foundations or Private investment partnerships. Several studies found that institutional ownership gave influences to agency cost and firm performance.

Pound (1998) presented three hypotheses as the effect of institutional ownership in the firm performance, there are: efficient monitoring, conflict of interest, and strategic alignment. In general, the existences of institutional ownership give positive impact to the related company. They had stronger motivation to inspect the listed companies, so they should monitor the managers more effectively than private investors. Because of the monitoring activities that they conduct, they would have more information and avoid from information asymmetries rather than the other shareholders.

Support the argument of Pound, Henry (2010) indicated that the institutional investors have a larger experience and they are more efficient monitors that the minority shareholders. He concluded that institutional investors should help facilitating the alignment of shareholder and managerial interests and, therefore, will lower the agency cost. The other research that found the negative relationship between agency cost and institutional ownership was the research by Darren (2010). He identified the listed companies on the Australian Stock Exchange in 1992 to 2002.

However, there was another research showing the contrast results related to the institutional ownership, agency cost, and firm performance. McKnight and Weir (2009) said that the institutional ownership was less effective in supervising managerial actions and may not moderate the agency cost problem.

2.5 Conceptual Framework

The conceptual framework is the main foundation where all of the research project are purposed, and become the system connecting each variable that logically explain, develop, and elaborate in the problem formulation identified through direct interview, observation, and literature survey (Kuncoro, 2003, p.44). Conceptual framework in this chapter showed that agency cost level and firm performance in the companies with managerial ownership and companies with institutional ownership are different.

Based on the analysis, the researcher built a picture in the terms of conceptual framework to make the reader easier in understanding this discussion, as seen below:

Agency Cost and Firm Performance in Companies with Managerial Ownership	$\neq$	Agency Cost and Firm Performance in Companies with Institutional Ownership
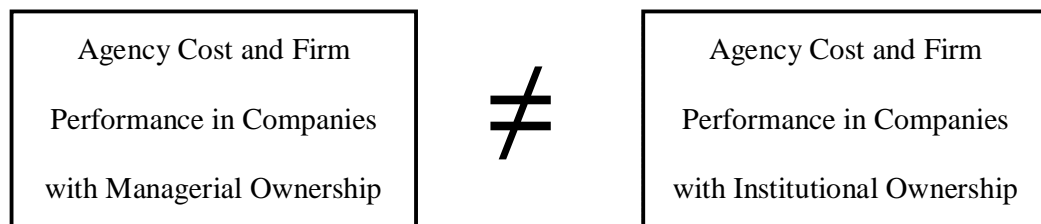
2.6 Hypothesis Formulation

The hypothesis is the answer of the problem formulation that should be tested empirically to know the truth.

2.6.1 Agency Cost

According to previous literature by Arman Saputra Sinaga (2009), agency cost is a cost that should be expended by the principals to monitor every decision made by the manager. The variable of agency is proxied by two alternative ratios that frequently appear in the accounting and financial economics literature: expense ratio and asset utilization ratio. The first ratio is a measure of how effectively the firm's management controls operating costs, including excessive perquisite consumption, and other direct agency costs. The second ratio is a measure of how effectively the firm's management deploys its assets.

According to the study literature, (McConnel and Servaes, 1990), institutional ownerships might have a stronger motivation to inspect the listed company, and they did not hesitate to oppose to managers' decisions. However, managers might have other incentives depending on the benefits. The behavior of managerial and, or institutional shareholders may influence the decision-making that directly and indirectly influences agency cost level faced by company. For example, when the company should make a decision of debt policy. The manager as the controller will be more concerned about their position so that they will choose the short term debt with low interest to

protect their position. On the other hand, the principals prefer to have long term debts that can give high returns for them. Another example is the research held by Pindado and De La Torre (2005). They examined the effect of ownership structure on debt policy on the basis of a sample of 135 Spanish companies from 1990 to 1999. The results showed that ownership concentration enhances debt financing in presence of free cash flow problem, even though debt is less used when there is an expropriation problem of minority shareholders by controlling owners. Furthermore, they provide some results about the interaction between insider ownership and ownership concentration. Results showed that ownership concentration does not change the relationship between managerial ownership and debt because when entrenched managers are in control, the monitoring role of outside owners become ineffective, and the additional debt promoted by outside shareholders increase when managers are entrenched. As a result, the relationship between ownership concentration and debt is affected by managerial ownership.

In relation to the debt decision-making, Lee and Yeo (2007) in their research showed that the existence of institutional owners in the company also give significant influences on debt policy. It showed a positive relationship between institutional ownership and level of leverage which indicates that active monitoring by institutional investors diminishes entrenched managers' incentives to avoid debt.

1. Relationship between Managerial Ownership and Agency Cost

As explained above that one of ways to reduce the agency problem is by aligning the interest of managers and principals or by increasing the ownership of manager. If the managers have ownerships in the company that they run, this will minimize the possibility of doing something for their own benefits. Managers will take fewer decisions that will have some negative effects on the related firms because the part of costs that will be absorbed, as shareholders, increase along with their part of the capital. Several studies approved that the existence of managerial ownership in a company can reduce the agency cost that might occur in companies. Poulain and Rehm (2005) in their research stated that there are negative and significant effects of the free cash flow to debt service. Florackis and Ozkan (2008) in their research indicated important governance mechanism for the UK listed companies which are managerial ownership, ownership concentration, executive compensation, short-term debt, and bank debt related to the agency cost problems.

2. Relationship between Institutional Ownership and Agency Cost

The stock ownership that concentrates by the institutional investor will be more effective in monitor the management activity. The ownership structure of the external parties (institutional investors), shareholder dispersion and the insiders' ownership has a significant influence and negative relationship with the debt ratio (Bathala, et. al., 1994). McConnel and Servaes (1990), Nesbitt (1994), Smith (1996) and Del Guercio and Hawkins (1999) found that

corporate monitoring by the institutional investors could result in managers'
focusing more on corporate performance and less on opportunistic or self-
solving behavior. It means that institutional ownership may reduce the agency
problems in company. Supporting that argument; Henry (2010) also said that
the existence of institutional ownership could reduce agency cost. He stated
that institutional investors help facilitating the alignment of shareholder and
managerial interests and, therefore, lower agency cost.

Institutional owner has larger experiences and they are more efficient
monitors rather than other shareholders (Henry, 2010). As the outside
shareholder, institutional owner has a better access to information, less
information asymmetry, because of their activity and the numerous investments
that they achieve rich information on the environment and an excellent
knowledge of the labor market. Similar with the statement, managerial
ownership may decrease the agency cost level in a company because managers
who own capital in the company will think twice in making decision, in which
the decision aligned with the interest of both manager and shareholder. Indeed,
the manager will take fewer decisions that may give negative impacts to the
company, because the part of costs that they will absorb, as shareholders,
increases with their part of capital. Therefore, managerial ownership property
represents a mechanism that permits to reduce the cost of control supported by
shareholders because it is supposed to reduce the managerial opportunism. The
researcher considers that managerial owner will be more efficient in
monitoring the company, including in estimating the agency cost rather than

institutional owner. Although both manager and institutional owner have the same rights related to their ownership, but the manager is the one that can directly operates and monitors the company, while the institutional owner can only monitor the manager's work. It means the researcher considers that the levels of the agency cost on companies with institutional ownership are higher than companies with managerial ownership.

H_1: The levels of the agency cost on companies with institutional ownership are higher than companies with managerial ownership.

2.6.2. Firm Performance

The firm performance measured against standard or prescribed indicators of effectiveness, efficiency, and environmental responsibility such as, cycle time, productivity, waste reduction, and regulatory compliance. In this research, the researcher divides the firm performance variables into three; firm value, operating performance, and stock return. Empirically, the firm value is commonly measured by Tobin's q ratio (Lang, et al., and Fama and French), while the operating performance is measured by using the Return On Asset (ROA) and Return On Equity (ROE). The last is stock return, which is calculated as the holding period return from time t-1 to t.

According to the study literature, McConnel and Servaes (1990) stated that institutional ownerships might have stronger motivation to inspect the listed company, and they did not hesitate to oppose to managers' decisions.

However, managers might have another incentive depending on the benefits. Their behavior may influence the decision-making that directly and indirectly influences the firm performance. Because of that, the researcher considers that there are differences of firm performances between managerial and institutional ownership.

1. Firm Value

a. Relationship between Managerial Ownership and Firm Value

The agency conflict that occurs between shareholder and manager can decrease the firm value. Therefore, it needs something to solve the conflicts by increasing the existence of managerial ownership in the company. By using the ownership, the opportunistic behavior of the manager can be reduced because he becomes a part of the shareholders. As a result, the manager performance can be increased and improved the firm value (Tendi Haruman, 2008). However, according to the entrenchment theory, when the managerial ownership becomes very high, it becomes sometimes difficult to oust them even though their performance is judged dissatisfactory. Thus, they manage to dominate assemblies of shareholders and indirectly, all decision taken by the firm (Daniel and Halpernm 1996), and try to reduce the possibility of takeover attempts (Stulz, 1988). The entrenchment hypothesis predicted that the value of the firm will decrease management ownership increases, or it means that there is negative relationship between managerial ownership and firm value.

b. Relationship between Institutional Ownership and Firm Value

Pound (1998) presented three hypotheses concerning the effect of institutional ownership on firm performance: efficient monitoring, conflict of interest, and strategic alignment. In his paper, Pound said that institutional ownership has a positive impact to the firm value. Institutional ownership will monitor the managers effectively, increasing more stocks and being more professional, and of course they had stronger motivation to inspect the listed companies. The cooperation also may reduce the beneficial effects on the firm value that could be the result from the direction by the institutional investors.

The researcher considers that firm values in companies with institutional ownership are higher than companies with managerial ownership. Considering the entrenchment theory as the theoretical review which is said that when the managerial ownership becomes very high, it becomes sometimes difficult to oust them even though their performance is judged dissatisfactory, it means the entrenchment hypothesis predicted that the firm value will decrease and management ownership increases. It has a negative relationship between managerial ownership and firm value. However, by the control, rich information, excellent knowledge from the institution who owns shares in the company (Henry, 2010), the firm value can increase. Shleifer and Vishny (1986) also noted that large shareholders, such as institution shareholder, may have a greater incentive to monitor managers than members of the board directors, who may have little or no wealth invested in the firm. Moreover, large institutional investors have the opportunity, resources, and ability to

monitor, discipline, and influence managers. Because of that, the researcher considers that the firm values of companies with institutional ownership are higher than companies with managerial ownership.

H_2: The firm values of companies with institutional ownership are higher than companies with managerial ownership.

2. Operating Performance

a. Relationship between Managerial Ownership and Operating Performance

If we think logically, we can estimate the higher proportion of managerial ownership in company governance because it will increase the operating performance of that company, especially if it is measured from the asset or margin contribution point of view. It can happen because it is impossible that a manager that also acts as the shareholder make a decision that can make him or her loss. They have thought twice, not only as the manager but also as the principal. Ridhwan (2010) did a research that examines the relationship between managerial ownership and operating performance, using the samples of 90 companies in Malaysian Stock Exchange. The result stated that CEO ownership is the factor that significantly influence to the operating performance. The result supports the research conducted by Li, et. al. (2007) and Jian and Kini (1994).

b. Relationship between Institutional Ownership and Operating Performance

There were a lot of studies using institutional ownership as the variable and researching the impact on the firm performance. McConnell and Servaes (1990) found that the percent of institutional investor ownership is positively related to a firm's Tobin's q. Nesbitt (1994), Smith (1996) and Del Guercio and Hawkins (1999) also found a positive relationship between institutional investor ownership and various measures of firm performance. Marcial, et al. (2007) presented at their paper the institutional investor involvement in a firm and operating cash flow return. Institutional investor influences the operating performance in the related company, but not significant relationship. It might happen because the percentage of institutional ownership is still in a small number. However, Agrawal and Knoeber (1996), Karpoff, et al. (1996), Duggal and Millar (1999) and Faccio and Lasfer (2000) found no such significant relationship between institutional and operating performance. It means that there has not clear yet about the relationship between institutional ownership and the operating performance in the company.

Operating performance in this research is measured by Return in Asset and Return on Equity. The researcher already mentioned previously that institution owners have more motivation to monitor and they do not hesitate to argue to manager if the manager's performance is not satisfy enough, especially if it is related to the financial aspect. It is different from the managerial owner who takes a role as both manager and owner. Even though they have shares in the related company, they will also think of how to secure their position as

managers. Shleifer and Vishny (1989) developed the entrenchment theory, which is said when the managerial ownership becomes very high; it becomes sometimes difficult to oust them even their performance is judged dissatisfactory. Because of that, similar with the firm value, the researcher considers that the operating performances of companies with institutional ownership are higher than companies with managerial ownership.

H_3: The operating performances of companies with institutional ownership are higher than companies with managerial ownership.

3. Stock Return

a. Relationship between Managerial Ownership and Stock Return

Stock return is changing of stock price during the research period. The result of research from the previous literature found that there was still a mixed relationship between managerial ownership and stock return. Zhang (2009) found for the U.S. market that an arbitrage portfolio, long on shares with high managerial ownership and short on shares with low managerial ownership earns an abnormal annual return of 6.4 percent. Von Lilienfeld-Toal and Ruenzi (2009) reported that firms where CEO shares ownership is more 5 percent earn significant abnormal stock returns. However, there are also previous researchers that concluded from indirect relationship of managerial ownership and stock return through agency cost. Chang, et al. found an evidence that there was a significant negative relationship between agency cost

and stock return. It means that there was also a relationship between managerial ownership and stock return.

b. Relationship between Institutional Ownership and Stock Return

There were still few researchers that examine the relationship between institutional ownership and the stock return. It might be because of the indirect effect between them. West (1988) found that an increase in the information content of prices will reduce variance of stock returns. Therefore, higher levels of institutional ownership will be associated with more informative prices and lower volatility. Lin, et al. (2007) stated that institutional investors are better informed than an individual investor. According to their research, Azzam did a research in Cairo in 2010. The result of his research showed that there is no effect on the stock return of Egypt companies related to the institutional ownership.

By using the literature found, the researcher concludes that most experts still found that managerial ownership has no significant influence to the stock return. The results are mixed. However, the researcher considers that institutional ownership has more effects to the stock return because the researcher found hypotheses from Richard and Laura in their journal of Changes in Institutional Ownership and Stock Returns: Assessment and Methodology. They mentioned three hypotheses about strong positive correlations between quarterly changes in institutional ownership and same-quarter returns; (1) institution has information that allows them to time their

trades, (2) institutional investors tend to be short-term momentum traders and (3) the buying and selling choices of institutions in aggregate have a contemporaneous effect on returns. Because of that, the researcher considers that the stock returns in companies with institutional ownership are higher than companies with managerial ownership.

H_4: The stock returns in companies with institutional ownership are higher than companies with managerial ownership.

CHAPTER III

RESEARCH METHOD

3.1 Methodology

This research is a descriptive statistical research. Descriptive statistics is a process of collecting, presenting, and summarizing the characteristics of data in order to describe the data appropriately. Descriptive statistics is used to analyze the data and describe the collected data without making general conclusions (Arman, 2009).

3.2 Research Subject

The subject of this research is whether the first group of companies (with managerial ownership) has differences in the agency cost level and firm performance with the second group of companies (with institutional ownership). The population of this research is all the companies listed in Indonesian Stock Exchange, which have managerial ownerships and/or institutional ownerships in their structures of governance, and already reported the financial report and published it in Indonesian Capital Market Directory (ICMD) in 2007-2011.

3.3 Types of data

Data that is used in this research is secondary data. According to M.M. Blair, secondary data are those that are in existence for some other purposes than the answering of question in hand. The researcher obtains the data from the Indonesian Capital Market Directory (ICMD), Indonesian Stock Exchange, Faculty of Economics, Islamic University of Indonesia; journals, reference books, and other literatures that related to the topic of the research.

3.4 Method of Data Collecting

The data collection techniques in this research are done by the literature study through journals from the previous researchers and financial reports, which were published to get the abstraction of the related problems, and also from the secondary data that was published in Indonesian Stock Exchange.

3.5 Populations and Sample

Population is all individuals who become the research object (Mustafa, 1998). According to the definition, the population of this research is all the companies listed in Indonesian Stock Exchange, which have managerial ownership and/or institutional ownership in their structures of governance, and already reported the financial report and published it in Indonesian Capital Market Directory (ICMD) in 2007-2011.

Sample is a part of the population. This research uses a purposive sampling in the technique of data collection. The criteria used by the researcher are follows:

1. The companies are included in the list of manufacturing companies listed in Indonesian Stock Exchange from the period of 2006-2010.

2. The companies should report the complete financial report and publish it in Indonesian Capital Market Directory (ICMD) from the period 2007-2011.

3. The companies should have the percentage of managerial or institutional ownership in their governance structure.

4. The study is concentrated on financial statement information especially on agency cost and firm performance.

5. This research includes two dependent variables which proxy into four variables and two independent variables. The dependent variables are Selling General Administrative as the proxy of agency cost and; firm value, operating performance, and stock return as the proxy of firm performance. The independent variables are managerial ownership and institutional ownership.

3.6 Research Variable

The research variable is a concept that has a variety in its value, so it will be measured by the dimension and relevant indicators. In this research, there are four dependent variables; agency cost, operating performance, firm

value, and stock return, and two independent variables; managerial ownership and institutional ownership.

1. Managerial Ownership

The managerial ownership is share ownership proportion owned by the manager, director and, or board of directors. This variable is measured according to the existence of managerial ownership, without considering the proportion amount.

2. Institutional Ownership

According to Djakman and Machmud (2008), an institutional ownership is the ownership of company's stock that is majority owned by the institution or organization (Assurance Company, bank, Investment Company, asset management, and other institution ownership). This variable is measured according to the existence of institutional ownership, without considering the proportion amount

.

3. Agency Cost

In this research, the researcher uses two alternative, measures of agency cost. The first is direct agency costs, which is calculated as the difference in Dollar expenses between companies with managerial and institutional ownership. The expenses are then standardized by annual sales. The second is

proxy for the loss in revenues attributable to inefficient asset utilization. It is calculated as the ratio of annual sales total assets, an efficiency ratio, between companies with managerial and institutional ownership.

$$Expense\ Ratio = \frac{Operating\ Expense}{Annual\ Sales}$$

$$Asset\ Utilization\ Ratio = \frac{Annual\ Sales}{Total\ Asset}$$

4. Firm Performance

a. Firm Value

To measure the firm value, researcher used Tobin's q ratio as the proxy.

$$q_t = \frac{MVA_t + PS_t + Debt_t}{TAB_t}$$

MVA = Market Value of common equity

PS = Market Value of preferred equity

TAB = Book Value of Total Asset

q = Tobin's q ratio

b. Operating Performance

The operating performance is measured by using Return on Asset and Return on Equity, as the most commonly adopted measures for corporate operating performance.

$$ROE = \frac{Net\ Profit\ After\ Tax}{Sharehoder's\ equity}$$

$$ROA = \frac{Net\ Profit\ After\ Tax}{Total\ Asset}$$

c. Stock Return

According to Ang (1997), stock return is the profit which is received by the investor through the investment. The stock return is calculated by using holding period return (see: Wang, 2010)

$$R_{it} = \frac{P_t - P_{t-1}}{P_{t-1}}$$

3.7 Research Procedures

The researcher conducts this research by following the procedures below.

1. Data Collection

   The researcher collects the data through journals from the previous researchers and financial reports, published to get the abstraction of the related problems, and also from the secondary data published in the Indonesian Stock Exchange. The data needed in this research are: percentages of managerial and institutional ownership, operation expenses, total sales, and market values of common and preferred equity, total asset book value, return on equity, return on asset, and stock return.

2. Data Reclassification

   After collecting the data, the researcher makes data classification according to the type of ownership (managerial and institutional ownership) and the period of financial statement.

3. Data Analysis

The data analysis will be done in each group of classification. This research compares two kinds of samples, so to test the hypothesis, the researcher uses Sample T-test according to two independent observation groups with 5% of significant scale. To make this research easier to be done, the researcher uses Excel and Minitab.

3.8 Hypothesis Testing

The hypothesis test will use the Minitab program to make easier calculation rather than do it manually. Besides, by using the Minitab program in data processing, the researcher can process the data more quickly and make the result more accurate. References of the previous literature (see: Arman, 2009), this research compares two kinds of population mean from two different samples. To test the hypothesis, researcher uses 2 sample t-test according to two independent observation group with 5% of significant scale. The sample t-test formula for all variables (agency cost, operating performance, firm value, stock return) in both groups (manufacture companies with managerial and institutional ownership) is:

$$t = \frac{\overline{X}1 - \overline{X}2}{S\overline{X}1 - \overline{X}2}$$

where:

$\overline{X}_1$ = Mean from Manufacture Companies with Managerial Ownership (for variable: agency cost, operating performance, firm value, and stock return)

$\overline{X}_2$ = Mean from Manufacture Companies with Institutional Ownership (for variable: agency cost, operating performance, firm value, and stock return)

$S\overline{X}_1\text{-}\overline{X}_2$ = Standard error for both groups (manufacture companies with managerial and institutional ownership)

The standard error formula for both groups (Manufacture companies with managerial and institutional ownership) is:

$$S\overline{X}_1 - \overline{X}_2 = \sqrt{\frac{S^2\ pooled}{N_1} + \frac{S^2\ pooled}{N_2}}$$

where:

$S^2_{\ pooled}$ = Variance for both groups (Manufacture companies with managerial and institutional ownership)

N_1 = Total of samples for Manufactures Companies with Managerial Ownership

N_2 = Total of samples for Manufactures Companies with Institutional Ownership

$$S^2 pooled = \frac{(N_1 - 1)\ SD_1^2 + (N_2 - 1)SD_2^2}{(N_1 - 1) + (N_2 - 1)}$$

where:

SD^2_1 = Variance for Manufacture Companies with Managerial Ownership

SD^2_2 = Variance for Manufacture Companies with Institutional Ownership

From the formula above, the researcher would like to conduct a research to know the differences of agency cost level and firm performance (Firm Value, Operating Performance, and Stock Return) between companies with managerial ownership and companies with institutional ownership in their structure of governance, using the hypothesis of:

H_{01}: The levels of agency cost on companies with institutional ownership are less or equal than companies with managerial ownership.

H_1: The levels of the agency cost on companies with institutional ownership are higher than companies with managerial ownership.

H_{02}: The firm values of companies with institutional ownership are less or equal than companies with managerial ownership.

H_2: The firm values of companies with institutional ownership are higher than companies with managerial ownership.

H_{03}: The operating performances of companies with institutional ownership are less or equal than companies with managerial ownership.

H_3: The operating performances of companies with institutional ownership are higher than companies with managerial ownership.

H_{04}: The stock returns in companies with institutional ownership are less or equal than companies with managerial ownership.

H_4: The stock returns in companies with institutional ownership are higher than companies with managerial ownership.

Acceptance hypothesis' criteria using t-Test:

H_0 is accepted if $t < t_{table}$, means that it is not different significantly

H_i is accepted if $t > t_{table}$, means that it is different significantly

CHAPTER IV

DATA ANALYSIS

4.1 Research Description

According to the data processing result, it can be analyzed to answer the problem formulated in this research. However, the researcher will discuss descriptively before doing the data analyses.

The descriptive values of independent variables are managerial and institutional ownership, and the dependent variables are agency cost and firm performances of manufacturing companies listed in Indonesian Stock Exchange 2006 – 2010. Managerial Ownership is a share proportion that can be owned by the manager (Suranta and Midiastuty, 2004). Institutional ownership is a proportion of stock ownership in the end of period by organization, such as insurance, bank or other institutions (Tarjo, 2008). Both of managerial and institutional ownership variables are measured in a nominal scale, meaning that differentiate the companies by the existence of managerial and institutional ownership, without seeing the percentage of ownership in each company. The existence of managerial and institutional ownership in a company can be seen from the note of financial report, especially in disclosed of company's equity part.

Agency cost is a cost that should be expended by the principals to monitor every decision made by the manager (Arman, 2009). This variable is

proxied by the expense and asset utilization ratios. The first proxy is direct agency cost, calculated as the difference in Dollar expenses between companies with institutional and managerial ownerships. This ratio measures how effectively the firm's management controls operating cost, including excessive perquisite consumption, and other direct agency costs. To facilitate cross-sectional comparisons, the researcher standardizes expenses by annual sales. Companies with higher expense ratio mean that they have higher agency costs. The second measure of agency costs is a proxy for the loss in revenues attributable to inefficient asset utilization, which can result from poor investment decision, e.g., investing in negative net-present-value assets, or from management's shirking, e.g., exerting too little effort to help generate revenue. It is calculated as the ratio of annual sales to total assets, an efficiency ratio. The researcher measures agency costs as the difference in the efficiency ratio, or equivalent, the dollar revenues lost, between companies with institutional and managerial ownership. In contrast to the expense ratio, agency costs are inversely related to the asset utilization ratio. Companies with higher asset utilization ratio mean they have lower agency costs. Both of the ratios are measured by the formula as follows:

$$Expense\ Ratio = \frac{Operating\ Expense}{Annual\ Sales}$$

$$Asset\ Utilization\ Ratio = \frac{Annual\ Sales}{Total\ Asset}$$

Beside to examine the difference of institutional and managerial ownership from the agency cost aspect, the researcher would like to examine the firm performance of both groups. The researcher thinks that it may have a relationship because the structure of ownership in a company may influence all decision making in a company, which may indirectly influence the company's performance itself. The firm performance is measured from the firm value, operating performance, and stock return aspect. Empirically, many researchers suggested using Tobin's q to proxy the firm value. For the operating performance, return on asset (ROA) and return on equity (ROE) are the most commonly adopted measures for companies' operating performance. Return on asset indicates the profitability on the asset of the firm (after all expenses and taxes). Return on equity indicates the profitability to the shareholder of the firm (after all expenses and taxes). The last is the stock return, which is calculated as the holding return period from time t-1 to t. All the proxies are expressed as follows:

$$q_t = \frac{MVA_t + PS_t + Debt_t}{TAB_t}$$

$$ROE = \frac{Net\ Profit\ After\ Tax}{Sharehoder's\ equity}$$

$$ROA = \frac{Net\ Profit\ After\ Tax}{Total\ Asset}$$

$$R_{it} = \frac{P_t - P_{t-1}}{P_{t-1}}$$

In this research, the data were obtained from Indonesian Capital Market Directory (ICMD), Indonesian Stock Exchange, Faculty of Economics, Islamic University of Indonesia. From the 131 manufacturing companies of 2006 – 2010, 47 companies are categorized in a group of companies with an institutional ownership, while 39 companies are those with managerial ownership.

4.2 Research Findings

The hypothesis testing and descriptive statistics in this research is done by using Minitab 14 through Independent Sample t-test with $\alpha = 5\%$.

1. Hypothesis testing of Agency Cost Variable

a. Descriptive Statistics

	N	Mean	StDev	SE Mean
Inst-Expense Ratio	47	0.171	0.144	0.021
Mng-Expense Ratio	39	0.0990	0.0655	0.010

The result presented that the mean (average) of agency cost, which is proxied by the expense ratio for companies with institutional ownership is 0.171, while for companies with managerial ownership is 0.0990

	N	Mean	StDev	SE Mean
Inst-Asset Utilization	47	1.143	0.606	0.088
Mng-Asset Utilization	39	1.147	0.532	0.085

The result presented that the mean (average) of agency cost, which is proxied by asset utilization ratio for companies with institutional ownership is 1.143, while for companies with managerial ownership is 1.147.

b. Hypothesis Testing

The hypothesis testing is done by using 2 sample t test. T test is aimed to decide whether the unrelated samples have different mean value. The t test is used to compare the mean (average) of both groups, which company group having the higher agency cost. The results of 2 sample t test for agency cost, to test the agency cost level which is proxied by the expense ratio, shows that the t test of companies with institutional ownership are higher than companies with managerial ownership, is presented below:

```
Difference = mu (Inst-Expense Ratio) - mu (Mng-Expense Ratio)
Estimate for difference:  0.071911
95% lower bound for difference:  0.032802
T-Test of difference = 0 (vs >): T-Value = 3.07  P-Value = 0.002
DF = 66
```

Criteria:

H_{01}: The levels of agency cost on companies with institutional ownership are less or equal than companies with managerial ownership.

H₁: The levels of the agency cost on companies with institutional ownership are higher than companies with managerial ownership.

The result shows that the t-value is 3.07 with p-value of 0.002. Because the p-value is < 0.05, then the H_{01} is rejected, or statistically it can be proven that the agency cost in companies with institutional ownership is higher than companies with managerial ownership.

The result of 2 sample t test for agency cost, to test the agency cost levels which is proxied by asset utilization ratio, shows that the t test of companies with institutional ownership are higher than companies with managerial ownership, is presented below.

```
Difference = mu (Inst-Asset Utilization Ratio) - mu (Mng-Asset
Utilization Ratio)
Estimate for difference:  -0.003461
95% upper bound for difference:  0.200664
T-Test of difference = 0 (vs <): T-Value = -0.03  P-Value = 0.489
DF = 83
```

Criteria:

H_{01}: The levels of agency cost on companies with institutional ownership are less or equal than companies with managerial ownership.

H₁: The levels of the agency cost on companies with institutional ownership are higher than companies with managerial ownership.

The result shows that the t-value is -0.03 with p-value of 0.489. Because the p-value is > 0.05, then the H_{01} is accepted, or statistically it

cannot be proven that agency cost in companies with institutional ownership is higher than companies with managerial ownership.

2. Hypothesis Testing of Firm Performance Variable

a. Firm Value

1) Descriptive Statistics

```
                  N    Mean   StDev  SE Mean
Inst-Firm Value   47   1.465  0.932     0.14
Mng-Firm Value    39   1.165  0.496    0.079
```

The result presents that the mean (average) of firm value, which is proxied by Tobin's q for companies with institutional ownership, is 1.465, while for companies with managerial ownership is 1.165.

2) Hypothesis Testing

The hypothesis testing is done by 2 sample t test. The t test is used to decide whether the unrelated samples have different mean values. The objective of t test is to compare the mean (average) of both groups, which group of companies having higher firm values. The result of the 2 sample t test for firm value, to test the firm value which is proxied by Tobin's q, shows that the t test of companies with institutional ownership are higher than companies with managerial ownership, is presented below:

```
Difference = mu (Inst-Firm Value) - mu (Mng-Firm Value)

Estimate for difference:  0.300466

95% lower bound for difference:  0.037969

T-Test of difference = 0 (vs >): T-Value = 1.91  P-Value = 0.030

DF = 72
```

Criteria:

H_{02}: The firm values of companies with institutional ownership are less or equal than companies with managerial ownership.

H_2: The firm values of companies with institutional ownership are higher than companies with managerial ownership.

The result shows that the t-value is 1.91 with p-value of 0.030. Because the p-value is < 0.05, then the H_{01} is rejected, or statistically it can be proven that firm value in companies with institutional ownership is higher than companies with managerial ownership.

b. Operating Performance

1) Descriptive Statistics

```
          N    Mean   StDev  SE Mean

Inst-ROE  47   0.082  0.296    0.043

Mng-ROE   39   0.069  0.165    0.026
```

The result presents that the mean (average) of operating performance, which is proxied by ROE for companies with institutional

ownership is 0.082, while for companies with managerial ownership is 0.069

```
            N    Mean   StDev   SE Mean
Inst-ROA   47   0.0313  0.0881   0.013
Mng-ROA    39   0.0358  0.0478   0.0077
```

The result presents that the mean (average) of operating performance, which is proxied by ROA for companies with institutional ownership is 0.0313, while for companies with managerial ownership is 0.0358.

2) Hypothesis Testing

The hypothesis testing is done by using 2 sample t test. The t test is used to decide whether the unrelated samples have different mean values. The objective of the t test is to compare the mean (average) of both groups, which group of companies having higher operating performances. The result of the 2 sample t test for operating performances, to test the operating performances which is proxied by ROE, shows that the t test of companies with institutional ownership are higher than companies with managerial ownership, is presented below:

```
Difference = mu (Inst-ROE) - mu (Mng-ROE)
Estimate for difference:  0.013007
95% lower bound for difference:  -0.071406
```

```
T-Test of difference = 0 (vs >): T-Value = 0.26  P-Value = 0.399

DF = 74
```

Criteria:

H_{03}: The operating performances of companies with institutional ownership are less or equal than companies with managerial ownership.

H_3: The operating performances of companies with institutional ownership are higher than companies with managerial ownership.

The result presents that the t-value is 0.26 with p-value of 0.399. Because the p-value is > 0.05, then the H_{03} is accepted, or statistically it cannot be proven that operating performances in companies with institutional ownership are higher than companies with managerial ownership.

The result of the 2 sample t test for operating performances, to test operating performances which is proxied by ROA, shows that the t test of companies with institutional ownership are higher than companies with managerial ownership, is presented below:

```
Difference = mu (Inst-ROA) - mu (Mng-ROA)

Estimate for difference:  -0.004498

95% lower bound for difference:  -0.029418

T-Test of difference = 0 (vs >): T-Value = -0.30  P-Value = 0.618

DF = 73
```

Criteria:

H_{03}: The operating performances of companies with institutional ownership are less or equal than companies with managerial ownership.

H_3: The operating performances of companies with institutional ownership are higher than companies with managerial ownership.

The result presents that the t-value is -0.30 with p-value of 0.618. Because the p-value is > 0.05, then the H_{03} is accepted, or statistically it cannot be proven that operating performances in companies with institutional ownership are higher than companies with managerial ownership.

c. Stock Return

1) Descriptive Statistics

```
                   N    Mean   StDev   SE Mean
Inst-Stock Return 47   0.275   0.503    0.073
Mng-Stock Return  39   0.326   0.508    0.081
```

The result presents that the mean (average) of stock return for companies with institutional ownership is 0.275, while for companies with managerial ownership is 0.326.

2) Hypothesis Testing

The hypothesis testing is done by the 2 sample t test. The t test is used to decide whether the unrelated samples have different mean values. The objective of the t test is to compare the mean (average) of both groups, which group of companies having higher stock returns. The result of the 2 sample t test for stock returns to test whether the stock returns in companies with institutional ownership are higher than companies with managerial ownership is presented below:

```
Difference = mu (Inst-Stock Return) - mu (Mng-Stock Return)
Estimate for difference:  -0.0510
95% lower bound for difference:  -0.233522
T-Test of difference = 0 (vs >): T-Value = -0.47  P-Value = 0.679
DF = 80
```

Criteria:

H_{04}: The stock returns companies with institutional ownership are less or equal than companies with managerial ownership.

H_4: The stock returns in companies with institutional ownership are higher than companies with managerial ownership.

The result shows that the t-value is -0.47 with p-value of 0.679. Because the p-value is > 0.05, then the H_{04} is accepted, or statistically it cannot be proven that stock return in companies with institutional ownership are higher than companies with managerial ownership.

4.3 Hypothesis Testing Result

1. Agency Cost

H_1: The levels of the agency cost on companies with institutional ownership are higher than companies with managerial ownership.

After conducting the test toward the data, the result shows that the t value for expense ratio is 3.07 with p value of 0.002 and t value for asset utilization ratio is -0.03 with p value of 0.489. It means that the p value of expense ratio is less than 0.05, showing that the first hypothesis (H_1) or the agency cost levels on companies with institutional ownership are higher than companies with managerial ownership is proven. It also can be seen from the descriptive statistics which shows the mean (average) of expense ratio on companies with institutional ownership is higher than companies with managerial ownership, which are 0.171 and 0.0990 respectively. However, the p value of asset utilization ratio is greater than 0.05, which means the first hypothesis (H_1) cannot be proven if using asset utilization ratio as the proxy. The second proxy is measured how efficiency the company in using the company's assets. It means that higher asset utilization ratio indicate lower agency cost. Obviously the asset utilization ratio in companies with managerial ownership is higher than in companies with utilization ratio. This can also be seen from the negative sign in t value of asset utilization ratio. The negative sign means that the mean (average) of asset utilization on companies with institutional ownership is less than companies with managerial ownership; which are 1.143 and 1.147 respectively. Even though it describes the lower agency cost in

companies with managerial ownership, but it is not significantly differences, so still the first hypothesis cannot be proven if using the asset utilization ratio.

From the test, the researcher concludes that the result of the first hypothesis (H_1), that the agency cost levels on companies with institutional ownership are higher than companies with managerial ownership, is proven if using expense ratio as the proxy by not proven if using asset utilization ratio as the proxy.

2. Firm Performance

H_2: The firm values of companies with institutional ownership are higher than companies with managerial ownership.

After conducting the test to the data, the result shows that the t value for firm value is 1.91 with p value of 0.030. It means that the p value of firm value is less than 0.05, showing that the second hypothesis (H_2) or the firm values of companies with institutional ownership are higher than companies with managerial ownership is proven. It can also be seen from the descriptive statistics which shows the mean (average) of companies' firm value with institutional ownership is higher than companies with managerial ownership, which are 1.465 and 1.165 respectively. From the test, the researcher concludes that the result of the second hypothesis (H_1), that the firm values of companies with institutional ownership are higher than companies with managerial ownership, is proven.

H₃: The operating performances of companies with institutional ownership are higher than companies with managerial ownership.

After conducting the test to the data, the result shows that the t value for ROE is 0.26 with p value of 0.399 and t value for ROA is -0.30 with p value of 0.618. It means that both p value of ROE and ROA are greater than 0.05, meaning that the third hypothesis (H₃) cannot be proven. It is true that the ROE of companies with institutional ownership is higher than companies with managerial ownership. It can be seen in the descriptive statistics, showing that the mean (average) of ROE from companies with institutional ownership is 0.082 while for the companies with managerial ownership is 0.069. However, the difference between them is not significant so that it makes the p value is greater than 0.05. Yet, there is a negative sign in the t value of ROE, which means that the ROE of companies with institutional ownership is less than companies with managerial ownership. It can be seen from the descriptive statistics. The means (average) of ROE for the companies with institutional and managerial ownership are 0.0313 and 0.0358 respectively. From the test, the researcher concludes that the result of the third hypothesis (H₃), that the operating performances of companies with institutional ownership are higher than companies with managerial ownership using the both proxy, ROE and ROA, is not proven.

H₄: The stock returns in companies with institutional ownership are higher than companies with managerial ownership.

After conducting the test to the data, the result shows that the t value for stock return is -0.47 with p value of 0.679. It means that the p value of stock return is greater than 0.05, which shows the fourth hypothesis (H₄) is rejected or it cannot be proven that the stock returns in companies with institutional ownership are higher than companies with managerial ownership. It can also be seen from the descriptive statistics showing the mean (average) of stock return of companies with institutional ownership is less than companies with managerial ownership; which are 0.275 and 0.326 respectively. From the test, the researcher concludes that the result of the fourth hypothesis (H₄), that the stock return in companies with institutional ownership are higher than companies with managerial ownership, is not proven.

The unproven data probably can be caused by the not proportional percentage of managerial and institutional ownership in the company. The very low percentage owned by managers gives an effect to the manager that they do not feel that they also own the company because they only receive a little proportion of profit from the ownership. This factor can motivate the manager to maximize the utility, so this can make the other shareholders owned bigger share loss. On the other hand, the low ownership of the manager makes the manager's performance also low, so it cannot significantly influence the company performances.

According to Pound (1998), most of majority institutional investors have attitude to being compromise with the manager and ignore or forget to the minority shareholder interest. The opinion which is said that sometimes management make decision which is not optimal and more think to their own interest, can make the occurring of alliance strategy between institutional investor with the manager, and it looked negative by the market. According to Lee, et al., institutional investor is the transfer owner; they only focus on the current earnings. The changes of current profit can influence the decision making of institutional investor. If the change may make the investors loss, the investors will directly pull out their shares. Because the institutional investor has an ownership in a big percentage, this can indirectly influence to the share values of the   company. It means that the existence of institutional ownership is not being the mechanism to improve the firm performance in a company.
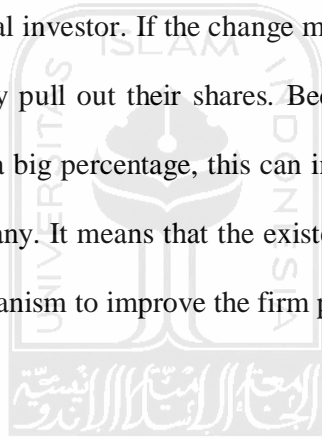
CHAPTER V

CONCLUSION AND RECOMMENDATION

5.1 Conclusion

This research's objective is to examine whether there are differences on both agency costs and firm performances or not in the companies with managerial ownership and companies with institutional ownership, which one of the group having higher agency cost and firm performances. The existences of these two variables, managerial and institutional ownership, in a company, may influence the manager behavior and decision making in the company. Because of that the reason, the researcher would like to compare between companies with managerial and institutional ownerships from the perspective of agency cost and firm performances. This research examined the manufacture companies listed in Indonesian Stock Exchange from 2006 until 2010. There are 131 manufacture companies which are listed in Indonesian Stock Exchange 2006 – 2010, but there are only 47 companies with institutional ownership and 39 companies with managerial ownership that fulfilled the criteria.

Referring to the results of the data processing, the researcher concluded to answer the problem formulation that:

1. There are significant differences of the level of agency cost between companies with institutional and managerial ownership if it is measured

by using expense ratio. However, there are not significant differences if it is measured by asset utilization ratio.

2. There are significant differences of the firm performances in the firm values between companies with institutional and managerial ownership, but there are not significant differences in the operating performances and stock returns.

5.2 Research Implication

The researcher expected that this research can show the differences of the existence of institutional and managerial ownership in a company in reducing the agency cost problem and improving the performance of the companies. It is also expected that this research's result can be the source for the investor, shareholder, and manager to consider when facing the agency cost and firm performance problems. Besides, this research's implication for investors is to consider the structure of governance before investing their funds, and for shareholders and managers to consider the percentage of ownership in order to manage the company.

5.3 Limitation Research

This research has limitation in some areas, which are:

1. The limitation of sample size. The sample size used in this research is the manufacturing companies listed in Indonesian Stock Exchange 2006-2010. From the 131 companies, around 40 companies fulfilled the criteria.

2. This research is not using the classic assumption test such as normality test, multicolliniarity, autocorrelation, and heteroscedasticity, which can influence the quality of the research result.

3. This research is not considering the proportion of share owned by manager and, or institution which possible influence the research findings and conclusion.

5.4 Recommendations

1. For manager, it is better for the manager to add the amount of ownership in the companies because the result shows that the percentage of the managerial ownership mostly under 10% while the institutional ownership is much higher than that.

2. For the future researcher, it is recommended to use the samples which are not only from the manufacturing companies, but also other groups of companies. It may also use different proxies for the agency cost and/ or firm performances and consider the proportion of share of ownership.

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APPENDICES

APPENDIX 1: COMPANIES WITH INSTITUTIONAL OWNERSHIP

No	Company Name	Code	Expense Ratio				
			2006	2007	2008	2009	2010
1	Akasha wira internasional	ades	1.00621	0.93313	0.57391	0.32538	0.16722
2	Cahaya kalbar	ceka	0.05643	0.05752	0.06889	0.03777	0.06465
3	Davomas abadi	davo	0.01045	0.00691	0.00649	0.99894	0.05379
4	Delta djkarta	dlta	0.3452	0.31128	0.27353	0.24103	0
5	Fast food indonesia	fast	0	0	0	0.50632	0.49275
6	Mayora	myor	0.17044	0.13783	0.10454	0.10898	0
7	Multi bintang indonesia	mlbi	0.32908	0.31619	0.26615	0.20786	0
8	Pioneerindo gourment	ptsp	0	0.60961	0.56669	0.56582	0.5753
9	Prasidha aneka niaga	psdn	0.07015	0.06922	0.06105	0	0
10	Sekar laut	sklt	0	0.17806	0.15907	0.18351	0
11	Siantar top	sttp	0.12975	0	0	0	0
12	Tiga Pilar sejahtera food	aisa	0.04695	0.07077	0.0816	0.0891	0.1077
13	Ultrajaya milk industri	ultj	0	0	0	0	0.0986
14	Bentoel internasional	rmba	0	0.14428	0	0	0
15	Argo pantes	argo	0.05769	0.05614	0.0683	0.05921	0.04153
16	Century textile	cntx	0.12062	0.12734	0.126	0.1204	0
17	Panasia Filament inti	pafi	0	0	0	0.09901	0
18	Roda vivatex	rdtx	0.10016	0.08073	0.06832	0.04667	0.04898
19	Eever shine tex	esti	0.05762	0.05585	0.04963	0.05465	0.05654
20	Indo acidatama	srsn	0	0	0.14112	0.12865	0.13227
21	Indorama synthetics	indr	0	0.06955	0.06496	0.05538	0.43726
22	Karwel Indonesia	karw	0	0.0716	0.07424	0.27247	0.22012
23	Pan brothers te	pbrx	0	0.07693	0	0.07072	0
24	Primarindo asia infrastructure	bima	0	0.09518	0.0837	0.09769	0.08643
25	Ricky putra globalindo	ricy	0	0.12061	0	0	0
26	Sepatu bata	bata	0.34416	0.32002	0.33796	0.3354	0.34006
27	Tirta mahakam resources	tirt	0	0.10756	0.12066	0.12993	0.12169
28	Suparma	spma	0.05516	0.04822	0.04977	0.0541	0.09434
29	Polysindo eka perkasa	poly	0.07372	0.07956	0.08009	0.07681	0.07438
30	Colorpak indonesia	clpi	0	0.03879	0.0318	0	0
31	Unggul indah cahaya	unic	0.07697	0.06947	0.07019	0.07077	0.63814
32	Resource alam indonesia	kkgi	0	0.69176	0.24011	0.24129	0.2642

33	Aneka kemasindo utama	akku	0	0	0	0	0.26578
34	Dynaplast	dyna	0	0	0	0	0.0919
35	Siwani makmur	sima	0.09131	0.09567	0.28141	0	0
36	Citra tubindo	ctbn	0	0	0.05288	0	0
37	Indal aluminium industry	inai	0	0.08298	0	0	0.10015
38	Tira autenite	tira	0.34687	0	0	0	0
39	Jembo cable company	jecc	0.08136	0	0	0	0
40	KMI wire and cable	kbli	0.03601	0.03892	0.04147	0.06057	0.05732
41	Multipolar	mlpl	0	0	0	0.2872	0.226
42	Gajah tunggal	gjtl	0.06696	0.07665	0	0	0
43	Multi prima sejahtera	lpin	0	0	0	0	0.2618
44	Multistrada arah sarana	masa	0.09507	0.07548	0.0857	0.08264	0.14747
45	Polychem indonesia	admg	0.02809	0.03483	0.03097	0.02583	0.02709
46	United tractor	untr	0	0.0468	0	0	0
47	Mustika ratu	mrat	0.47982	0.4827	0.47452	0	0

			Asset Utilization Ratio				
No	Company Name	Code	2006	2007	2008	2009	2010
1	Akasha wira internasional	ades	0.57896	0.73589	0.70017	0.75405	0.67412
2	Cahaya kalbar	ceka	1.39264	1.3242	3.24276	2.10173	0.84448
3	Davomas abadi	davo	0.61178	0.72381	0.93723	0.14471	0.56378
4	Delta djkarta	dlta	0.68709	0.74249	0.96488	0.97403	0
5	Fast food indonesia	fast	0	0	0	2.35677	2.35918
6	Mayora	myor	1.26918	1.49402	1.33687	1.47149	0
7	Multi bintang indonesia	mlbi	1.45961	1.57373	1.4082	1.6269	0
8	Pioneerindo gourment	ptsp	0	2.21293	2.53592	2.50135	2.21846
9	Prasidha aneka niaga	psdn	1.8045	2.05695	2.48502	0	0
10	Sekar laut	sklt	0	1.2975	1.55781	1.40842	0
11	Siantar top	sttp	1.18763	0	0	0	0
12	Tiga Pilar sejahtera food	aisa	0.91625	0.61024	0.48101	0.39583	0.39583
13	Ultrajaya milk industri	ultj	0	0	0	0	0.93712
14	Bentoel internasional	rmba	0	1.18834	0	0	0
15	Argo pantes	argo	0.47359	0.56022	0.63319	0.51672	0.46509
16	Century textile	cntx	0.82816	0.6314	0.81712	0.71629	0
17	Panasia Filament inti	pafi	0	0	0	0.53263	0
18	Roda vivatex	rdtx	0.26354	0.2434	0.35387	0.36252	0.30594
19	Eever shine tex	esti	0.90082	0.93858	1.07331	1.04038	1.05455
20	Indo acidatama	srsn	0	0	0.7989	0.85201	0.94194

No	Company Name	Code					
21	Indorama synthetics	indr	0	0.81075	0.90837	0.89894	1.09064
22	Karwel indonesia	karw	0	1.12407	1.82186	0.69213	0.53253
23	Pan brothers te	pbrx	0	1.9487	0	1.94445	0
24	Primarindo asia infrastructure	bima	0	2.43228	2.64285	2.55297	3.6832
25	Ricky putra globalindo	ricy	0	0.74056	0	0	0
26	Sepatu bata	bata	1.57897	1.48674	1.34302	1.43862	1.33028
27	Tirta mahakam resources	tirt	0	1.39561	1.14116	0.99021	1.06906
28	Suparma	spma	0.49835	0.54292	0.66301	0.71178	0.78026
29	Polysindo eka perkasa	poly	0.52659	0.6688	0.76348	0.77041	1.11709
30	Colorpak indonesia	clpi	0	2.28104	1.94927	0	0
31	Unggul indah cahaya	unic	1.06203	1.14427	1.21064	1.18054	1.41693
32	Resource alam indonesia	kkgi	0	0.31796	1.50282	1.48977	1.83853
33	Aneka kemasindo utama	akku	0	0	0	0	0.10391
34	Dynaplast	dyna	0	0	0	0	1.03956
35	Siwani makmur	sima	1.32903	1.07117	0.30411	0	0
36	Citra tubindo	ctbn	0	0	1.59007	0	0
37	Indal aluminium industry	inai	0	1.06493	0	0	1.18615
38	Tira autenite	tira	0.82355	0	0	0	0
39	Jembo cable company	jecc	1.23542	0	0	0	0
40	KMI wire and cable	kbli	2.56356	2.56413	2.85217	1.67564	2.06554
41	Multipolar	mlpl	0	0	0	0.9172	0.68045
42	Gajah tunggal	gjtl	0.75188	0.78771	0	0	0
43	Multi prima sejahtera	lpin	0	0	0	0	0.32387
44	Multistrada arah sarana	masa	0.3962	0.4993	0.56057	0.66697	0.56057
45	Polychem indonesia	admg	0.81738	0.92722	1.03802	0.84491	0.9631
46	United tractor	untr	0	1.39707	0	0	0
47	Mustika ratu	mrat	0.77591	0.79786	0.86759	0	0

			Firm Value (Q)				
No	Company Name	Code	2006	2007	2008	2009	2010
1	Akasha wira internasional	ades	2.52596	1.0015	2.07455	2.99962	2.87369
2	Cahaya kalbar	ceka	0.83757	1.07453	0.98035	1.09764	0.9343
3	Davomas abadi	davo	2.42606	1.55954	1.01947	1.06174	1.01807
4	Delta djkarta	dlta	0.99598	0.6546	0.82292	1.74872	0
5	Fast food indonesia	fast	0	0	0	3.1716	3.96174
6	Mayora	myor	1.03817	0.87627	0.85455	1.45047	0
7	Multi bintang indonesia	mlbi	2.65946	2.37608	2.1115	4.34036	0
8	Pioneerindo gourment	ptsp	0	2.12768	1.97947	1.44733	1.75868

9	Prasidha aneka niaga	psdn	0.90455	0.98674	1.03121	0	0
10	Sekar laut	sklt	0	0.85045	0.80845	0.94974	0
11	Siantar top	sttp	1.19097	0	0	0	0
12	Tiga Pilar sejahtera food	aisa	1.25213	1.46734	1.00082	0.94927	1.31
13	Ultrajaya milk industri	ultj	0	0	0	0	1.8342
14	Bentoel internasional	rmba	0	1.31589	0	0	0
15	Argo pantes	argo	1.24757	1.07248	1.18777	1.27343	1.06308
16	Century textile	cntx	0.69219	0.80827	0.83624	0.93735	0
17	Panasia Filament inti	pafi	0	0	0	1.94892	0
18	Roda vivatex	rdtx	0.84751	0.98047	0.85911	0.75823	0.82407
19	Eever shine tex	esti	0.69208	0.77815	0.73549	0.70315	0.90628
20	Indo acidatama	srsn	0	0	1.27475	1.35961	1.26601
21	Indorama synthetics	indr	0	0.69467	0.6441	0.59043	3.67879
22	Karwel indonesia	karw	0	1.52633	1.93998	2.70541	3.49752
23	Pan brothers te	pbrx	0	0.95677	0	0.85844	0
24	Primarindo asia infrastructure	bima	0	3.7788	3.71492	3.94507	4.09685
25	Ricky putra globalindo	ricy	0	0.46922	0	0	0
26	Sepatu bata	bata	1.03247	1.11835	1.01588	1.21474	2.10065
27	Tirta mahakam resources	tirt	0	0.80568	0.85849	0.89752	0.89166
28	Suparma	spma	0.84393	0.7634	0.68291	0.74836	0.73817
29	Polysindo eka perkasa	poly	2.55438	5.11002	2.86971	2.78634	3.09643
30	Colorpak indonesia	clpi	0	3.4331	2.59133	0	0
31	Unggul indah cahaya	unic	0.967	0.92196	0.89385	0.8286	7.37057
32	Resource alam indonesia	kkgi	0	2.96567	2.78178	1.36339	7.86238
33	Aneka kemasindo utama	akku	0	0	0	0	1.65265
34	Dynaplast	dyna	0	0	0	0	0.6591
35	Siwani makmur	sima	0.59811	0.76849	0.61775	0	0
36	Citra tubindo	ctbn	0	0	0.62923	0	0
37	Indal aluminium industry	inai	0	0.92543	0	0	0.93355
38	Tira autenite	tira	1.04902	0	0	0	0
39	Jembo cable company	jecc	0.91303	0	0	0	0
40	KMI wire and cable	kbli	0.95819	0.86159	0.78011	0.6993	0.737
41	Multipolar	mlpl	0	0	0	0.86715	0.53688
42	Gajah tunggal	gjtl	0.93295	0.85271	0	0	0
43	Multi prima sejahtera	lpin	0	0	0	0	0.8444
44	Multistrada arah sarana	masa	1.07734	1.10037	0.85861	1.07588	1.30914
45	Polychem indonesia	admg	0.88094	0.80897	0.81121	0.86999	0.8717
46	United tractor	untr	0	3.24116	0	0	0

No	Company Name	Code	0.49746	0.39971	0.36734	0	0
47	Mustika ratu	mrat	0.49746	0.39971	0.36734	0	0

			Operating Performance (ROE)				
No	Company Name	Code	2006	2007	2008	2009	2010
1	Akasha wira internasional	ades	0.59436	-2.3076	-0.293	0.23924	0.31698
2	Cahaya kalbar	ceka	0.07867	0.07735	0.11857	0.16415	0.09575
3	Davomas abadi	davo	0.20111	0.176	-0.7579	-0.5073	-0.0274
4	Delta djkarta	dlta	0.0988	0.10325	0.16114	0.21433	0
5	Fast food indonesia	fast	0	0	0	0.28477	0.24898
6	Mayora	myor	0.09652	0.13088	0.1576	0.23528	0
7	Multi bintang indonesia	mlbi	0.37076	0.42678	0.64591	3.23595	0
8	Pioneerindo gourment	ptsp	0	0.15191	0.89108	0.64142	0.43292
9	Prasidha aneka niaga	psdn	0.12853	-0.1035	0.10161	0	0
10	Sekar laut	sklt	0	0.05957	0.04243	0.11283	0
11	Siantar top	sttp	0.04206	0	0	0	0
12	Tiga Pilar sejahtera food	aisa	0.00137	0.045	0.07343	0.0882	0.0882
13	Ultrajaya milk industri	ultj	0	0	0	0	0.08253
14	Bentoel internasional	rmba	0	0.15758	0	0	0
15	Argo pantes	argo	0.12624	-0.5952	-1.6761	-2.0626	-0.59
16	Century textile	cntx	-0.1513	-0.4065	-0.6826	-1.549	0
17	Panasia Filament inti	pafi	0	0	0	0.36267	0
18	Roda vivatex	rdtx	0.10187	0.09304	0.13242	0.19213	0.2392
19	Eever shine tex	esti	-0.1798	-0.0565	-0.0884	0.02993	0.00581
20	Indo acidatama	srsn	0	0	0.03505	0.1162	0.04307
21	Indorama synthetics	indr	0	0.00972	0.03038	0.04451	0.90856
22	Karwel Indonesia	karw	0	-0.2815	0.73848	0.07832	0.1022
23	Pan brothers te	pbrx	0	0.17306	0	0.25305	0
24	Primarindo asia infrastructure	bima	0	-0.0535	0.10139	-0.0611	-0.0475
25	Ricky putra globalindo	ricy	0	0.12414	0	0	0
26	Sepatu bata	bata	0.10606	0.16648	0.5769	0.17582	0.18393
27	Tirta mahakam resources	tirt	0	0.00397	-0.5176	0.08658	-0.0743
28	Suparma	spma	0.05191	0.04052	-0.0216	0.0391	0.04123
29	Polysindo eka perkasa	poly	0.0042	0.01291	0.23389	-0.1501	-0.0423
30	Colorpak indonesia	clpi	0	0.1333	0.22242	0	0
31	Unggul indah cahaya	unic	0.01016	0.02757	0.03013	0.03189	0.27876
32	Resource alam indonesia	kkgi	0	0.29327	0.32689	0.2122	0.54108
33	Aneka kemasindo utama	akku	0	0	0	0	-0.3158
34	Dynaplast	dyna	0	0	0	0	0.16016

35	Siwani makmur	sima	0.02498	-0.1131	-0.2968	0	0
36	Citra tubindo	ctbn	0	0	0.21296	0	0
37	Indal aluminium industry	inai	0	0.00442	0	0	0.1998
38	Tira autenite	tira	0.0871	0	0	0	0
39	Jembo cable company	jecc	0.00932	0	0	0	0
40	KMI wire and cable	kbli	0.78965	0.14044	0.12802	0.09017	0.16622
41	Multipolar	mlpl	0	0	0	0.06977	0.58468
42	Gajah tunggal	gjtl	0.05545	0.03808	0	0	0
43	Multi prima sejahtera	lpin	0	0	0	0	0.05767
44	Multistrada arah sarana	masa	0.23559	0.02267	0.00231	0.1198	0.00231
45	Polychem indonesia	admg	-0.2134	0.04395	-0.2605	0.04938	0.03009
46	United tractor	untr	0	0.26041	0	0	0
47	Mustika ratu	mrat	0.03441	0.03981	0.07341	0	0

			Operating Performance (ROA)				
No	Company Name	Code	2006	2007	2008	2009	2010
1	Akasha wira internasional	ades	-0.5522	-0.8662	-0.0822	0.09154	0.09756
2	Cahaya kalbar	ceka	0.05445	0.04021	0.04602	0.08708	0.03476
3	Davomas abadi	davo	0.07249	0.05389	-0.1411	-0.0808	-0.0093
4	Delta djkarta	dlta	0.07496	0.0799	0.11994	0.16636	0
5	Fast food indonesia	fast	0	0	0	0.17476	0.16148
6	Mayora	myor	0.06024	0.07479	0.06713	0.11463	0
7	Multi bintang indonesia	mlbi	0.12054	0.1357	0.23615	0.3427	0
8	Pioneerindo gourment	ptsp	0	0.0022	0.05244	0.12076	0.14464
9	Prasidha aneka niaga	psdn	0.04112	-0.0296	0.03292	0	0
10	Sekar laut	sklt	0	0.03143	0.02125	0.06526	0
11	Siantar top	sttp	0.03086	0	0	0	0
12	Tiga Pilar sejahtera food	aisa	0.00036	0.01988	0.02821	0.02805	0.02805
13	Ultrajaya milk industri	ultj	0	0	0	0	0.05339
14	Bentoel internasional	rmba	0	0.06295	0	0	0
15	Argo pantes	argo	-0.0091	-0.096	-0.1093	-0.0518	-0.0875
16	Century textile	cntx	-0.0506	-0.089	-0.124	-0.1371	0
17	Panasia Filament inti	pafi	0	0	0	-0.0294	0
18	Roda vivatex	rdtx	0.06478	0.05968	0.09831	0.15748	0.20048
19	Eever shine tex	esti	-0.097	-0.0283	-0.0415	0.01482	0.00255
20	Indo acidatama	srsn	0	0	0.01722	0.06134	0.02701
21	Indorama synthetics	indr	0	0.0037	0.01215	0.02085	0.45831
22	Karwel indonesia	karw	0	0.0199	-0.3962	-0.0682	-0.1371

23	Pan brothers te	pbrx	0	0.02957	0	0.04061	0
24	Primarindo asia infrastructure	bima	0	0.10612	-0.2022	0.13005	0.10488
25	Ricky putra globalindo	ricy	0	0.07203	0	0	0
26	Sepatu bata	bata	0.07427	0.10413	0.39204	0.12736	0.12592
27	Tirta mahakam resources	tirt	0	0.00142	-0.1194	0.01975	-0.0172
28	Suparma	spma	0.01686	0.01824	-0.0091	0.0188	0.01988
29	Polysindo eka perkasa	poly	-0.0043	-0.0164	-0.4316	0.25884	0.08399
30	Colorpak indonesia	clpi	0	0.05823	0.07767	0	0
31	Unggul indah cahaya	unic	0.00411	0.01266	0.013	0.01745	0.14833
32	Resource alam indonesia	kkgi	0	0.14062	0.17976	0.11725	0.31489
33	Aneka kemasindo utama	akku	0	0	0	0	-0.165
34	Dynaplast	dyna	0	0	0	0	0.05225
35	Siwani makmur	sima	0.0159	-0.0588	-0.1354	0	0
36	Citra tubindo	ctbn	0	0	0.1029	0	0
37	Indal aluminium industry	inai	0	0.00069	0	0	0.04094
38	Tira autenite	tira	0.0258	0	0	0	0
39	Jembo cable company	jecc	0.00164	0	0	0	0
40	KMI wire and cable	kbli	0.11422	0.05133	0.04388	0.04219	0.08126
41	Multipolar	mlpl	0	0	0	0.00933	0.20195
42	Gajah tunggal	gjtl	0.01627	0.01074	0	0	0
43	Multi prima sejahtera	lpin	0	0	0	0	0.02604
44	Multistrada arah sarana	masa	0.11858	0.01623	0.00125	0.06895	0.00125
45	Polychem indonesia	admg	-0.067	0.01393	-0.0683	0.01447	0.00998
46	United tractor	untr	0	0.11483	0	0	0
47	Mustika ratu	mrat	0.03118	0.03522	0.06283	0	0

			Stok Return				
No	Company Name	Code	2006	2007	2008	2009	2010
1	Akasha wira internasional	ades	-0.3357	-0.5161	-0.0556	0.69412	0.66667
2	Cahaya kalbar	ceka	0	0.78	-0.1573	0.6	-0.2917
3	Davomas abadi	davo	7.66667	-0.6538	-0.7778	-0.1667	0.64
4	Delta djkarta	dlta	-0.1727	-0.4139	0.5625	1.92	0
5	Fast food indonesia	fast	0	0	0	1.16667	0.53846
6	Mayora	myor	0.77922	-0.1679	-0.0263	2.62613	0
7	Multi bintang indonesia	mlbi	0.09524	-0.1304	0.32	1.46212	0
8	Pioneerindo gourment	ptsp	0	0	0	-0.3	0.375
9	Prasidha aneka niaga	psdn	-0.1286	0.2459	0.31579	0	0
10	Sekar laut	sklt	0	-0.6	-0.1	0.66667	0

11	Siantar top	sttp	1.35714	0	0	0	0
12	Tiga Pilar sejahtera food	aisa	0.02286	2.85475	-0.4565	-0.08	1.34783
13	Ultrajaya milk industri	ultj	0	0	0	0	0.63492
14	Bentoel internasional	rmba	0	0.36667	0	0	0
15	Argo pantes	argo	0	0	0	0	-0.3077
16	Century textile	cntx	-0.3878	0.1	-0.197	0	0
17	Panasia Filament inti	pafi	0	0	0	0	0
18	Roda vivatex	rdtx	0.05495	0.40625	-0.037	0.07692	0.5
19	Eever shine tex	esti	-0.2375	0.22951	-0.28	-0.0556	0.96078
20	Indo acidatama	srsn	0	0	-0.875	0.22	-0.1148
21	Indorama synthetics	indr	0	0.21429	-0.3382	0.02222	4.38043
22	Karwel indonesia	karw	0	3.60784	-0.5532	0.38095	0
23	Pan brothers te	pbrx	0	-0.6129	0	-0.4098	0
24	Primarindo asia infrastructure	bima	0	0	0	0	0
25	Ricky putra globalindo	ricy	0	0.08511	0	0	0
26	Sepatu bata	bata	0.05517	0.24183	0.13158	0.39535	1.21667
27	Tirta mahakam resources	tirt	0	0	-0.4444	0.56	-0.1026
28	Suparma	spma	0.38235	-0.0851	-0.4837	0.98198	0
29	Polysindo eka perkasa	poly	0.42222	4.07813	-0.8462	1.38	0.58824
30	Colorpak indonesia	clpi	0	-0.0063	0.04459	0	0
31	Unggul indah cahaya	unic	-0.2632	-0.0179	0	-0.1818	-0.2178
32	Resource alam indonesia	kkgi	0	2.4	0.23529	-0.5238	2.925
33	Aneka kemasindo utama	akku	0	0	0	0	0.03571
34	Dynaplast	dyna	0	0	0	0	0.22857
35	Siwani makmur	sima	0.05455	0.35057	-0.7745	0	0
36	Citra tubindo	ctbn	0	0	-0.8967	0	0
37	Indal aluminium industry	inai	0	0.19048	0	0	0.30769
38	Tira autenite	tira	0	0	0	0	0
39	Jembo cable company	jecc	-0.3049	0	0	0	0
40	KMI wire and cable	kbli	0.15714	-0.0617	-0.3421	0.1	0.63636
41	Multipolar	mlpl	0	0	0	0.375	-0.0545
42	Gajah tunggal	gjtl	-0.1875	-0.3077	0	0	0
43	Multi prima sejahtera	lpin	0	0	0	0	1.31818
44	Multistrada arah sarana	masa	0.42857	-0.04	-0.3542	0.74194	0.22222
45	Polychem indonesia	admg	-0.3651	-0.325	-0.4593	1.13699	0.26282
46	United tractor	untr	0	0.60131	0	0	0
47	Mustika ratu	mrat	0.03774	-0.2364	-0.119	0	0

APPENDIX 2: COMPANIES WITH MANAGERIAL OWNERSHIP

No	Company Name	Code	Expense Ratio				
			2006	2007	2008	2009	2010
1	Indofood sukses makmur	indf	0	0	0	0	0.1495
2	Siantar top	sttp	0	0.09497	0	0.09944	0.06717
3	Tunas baru lampung	tbla	0.1069	0.10314	0.11237	0.05955	0.09875
4	Gudang garam	ggrm	0	0.06521	0.06581	0.0594	0.0798
5	Indo acidatama	srsn	0.09873	0	0	0	0
6	Pan brothers te	pbrx	0.06933	0	0	0	0
7	Barito pacific	brpt	0.3754	0	0	0	0
8	Akr corporindo	akra	0.05719	0.05977	0.04492	0.04617	0.0378
9	Budi acid jaya	budi	0.05845	0	0	0	0
10	Lautan luas	ltls	0.11332	0.12105	0.09281	0.11462	0.11655
11	Sorini agro asia corporindo	sobi	0.14374	0.13525	0	0	0
12	Duta pertiwi nusantara	dpns	0.17275	0	0	0	0
13	Ekadharma internasional	ekad	0.15001	0	0	0	0
14	Intanwijaya internasional	inci	0.12998	0.10982	0.16916	0.17266	0.08979
15	Aneka kemasindo utama	akku	0	0.08117	0	0	0
16	Asahimas flat glass	amfg	0.17288	0.15609	0	0.11457	0
17	Asiaplas industries	apli	0.05519	0.04529	0.03518	0	0
18	Berlina	brna	0.1198	0.12027	0.10754	0.10671	0.11136
19	Leyand international	lapd	0	0.08081	0	0	0
20	Titan kimia nusantara	fpni	0.06992	0	0	0	0
21	Alumindo light metal industry	almi	0	0	0	0	0.02802
22	Betonjaya manunggal	bton	0.05979	0	0	0	0
23	Citra tubindo	ctbn	0.03571	0	0	0	0
24	Indal aluminium industry	inai	0.07209	0	0	0	0
25	Jakarta kyoei steel work	jksw	0.07998	0	0	0	0
26	Jaya pari steel	jprs	0.04124	0.03351	0.02325	0.04987	0.04047
27	Lion metal work	lion	0.23868	0	0	0.23123	0.2209
28	Pelangi indah canindo	pico	0.0677	0	0	0	0
29	Kabelindo murni	kblm	0.03821	0	0	0	0
30	Sumi indo kabel	ikbi	0.02137	0.02339	0.02722	0.04408	0.03639
31	Metrodata electronic	mtdl	0.08112	0	0	0	0
32	Astra international	asii	0	0	0	0.10165	0.09346
33	Astra otopart	auto	0.13349	0	0	0.10039	0.09265
34	Goodyear indonesia	gdyr	0.04919	0.04939	0.04111	0	0
35	Hexindo adiperkasa	hexa	0.13696	0.12124	0	0	0

36	Indo kordsa	bram	0.0895	0.07188	0.06678	0.05749	0.05176
37	Indomobil sukses internasional	imas	0.20536	0	0	0	0
38	Nipress	nips	0.0691	0.05278	0.06704	0.10988	0.09534
39	prima alloy steel	pras	0.03613	0.04005	0.06041	0.14018	0.07342

			Asset Utilization Ratio				
No	Company Name	Code	2006	2007	2008	2009	2010
1	Indofood sukses makmur	indf	0	0	0	0	0.81232
2	Siantar top	sttp	0	1.16017	0	1.14287	1.17456
3	Tunas baru lampung	tbla	0.58268	0.75056	1.41154	0.99901	0.80828
4	Gudang garam	ggrm	0	1.15178	1.25666	1.21087	1.22609
5	Indo acidatama	srsn	0.8152	0	0	0	0
6	Pan brothers te	pbrx	2.57582	0	0	0	0
7	Barito pacific	brpt	0.25934	0	0	0	0
8	Akr corporindo	akra	1.67007	1.68537	1.94314	1.47875	1.59088
9	Budi acid jaya	budi	1.15167	0	0	0	0
10	Lautan luas	ltls	1.31835	1.27046	1.29595	1.24145	1.08649
11	Sorini agro asia corporindo	sobi	1.25574	1.23732	0	0	0
12	Duta pertiwi nusantara	dpns	0.57969	0	0	0	0
13	Ekadharma internasional	ekad	1.4753	0	0	0	0
14	Intanwijaya internasional	inci	0.6755	0.67719	0.77645	0.44296	0.36152
15	Aneka kemasindo utama	akku	0	0.42799	0	0	0
16	Asahimas flat glass	amfg	0.94593	1.0604	0	0.96987	0
17	Asiaplas industries	apli	0.60372	0.65363	1.08948	0	0
18	Berlina	brna	0.7514	0.97148	1.11046	1.05898	1.03162
19	Leyand international	lapd	0	1.09356	0	0	0
20	Titan kimia nusantara	fpni	0.7346	0	0	0	0
21	Alumindo light metal industry	almi	0	0	0	0	2.00715
22	Betonjaya manunggal	bton	1.70024	0	0	0	0
23	Citra tubindo	ctbn	1.55981	0	0	0	0
24	Indal aluminium industry	inai	1.04326	0	0	0	0
25	Jakarta kyoei steel work	jksw	0.47763	0	0	0	0
26	Jaya pari steel	jprs	1.7964	1.61021	1.83477	0.85568	1.04015
27	Lion metal work	lion	0.76335	0	0	0.72783	0.68388
28	Pelangi indah canindo	pico	0.92116	0	0	0	0
29	Kabelindo murni	kblm	1.02159	0	0	0	0
30	Sumi indo kabel	ikbi	3.24303	2.69879	2.58533	1.53415	2.04105

31	Metrodata electronic	mtdl	2.2088	0	0	0	0
32	Astra international	asii	0	0	0	0.11078	1.15182
33	Astra otopart	auto	1.11351	0	0	1.13366	1.11981
34	Goodyear indonesia	gdyr	2.15989	1.87845	1.21734	0	0
35	Hexindo adiperkasa	hexa	1.15915	1.26366	0	0	0
36	Indo kordsa	bram	0.98083	0.99501	0.97915	1.11189	1.20944
37	Indomobil sukses internasional	imas	0.65836	0	0	0	0
38	Nipress	nips	1.18129	1.39795	1.4783	0.89014	1.18746
39	prima alloy steel	pras	1.25787	1.21205	0.73952	0.38316	0.62169

			Firm Value (Q)				
No	Company Name	Code	2006	2007	2008	2009	2010
1	Indofood sukses makmur	indf	0	0	0	0	1.46794
2	Siantar top	sttp	0	1.12973	0	0.89547	1.12816
3	Tunas baru lampung	tbla	1.23161	1.34646	0.99365	1.30023	0.89046
4	Gudang garam	ggrm	0	1.02842	0.83489	2.10906	2.86949
5	Indo acidatama	srsn	2.79137	0	0	0	0
6	Pan brothers te	pbrx	1.2952	0	0	0	0
7	Barito pacific	brpt	1.56336	0	0	0	0
8	Akr corporindo	akra	1.26259	1.77603	0.95125	1.09864	1.35756
9	Budi acid jaya	budi	0.95614	0	0	0	0
10	Lautan luas	ltls	0.86114	0.82626	0.89265	0.90317	0.88309
11	Sorini agro asia corporindo	sobi	0.98326	1.91772	0	0	0
12	Duta pertiwi nusantara	dpns	1.16714	0	0	0	0
13	Ekadharma internasional	ekad	1.34718	0	0	0	0
14	Intanwijaya internasional	inci	0.40184	0.34815	0.22459	0.21495	0.37228
15	Aneka kemasindo utama	akku	0	0.73447	0	0	0
16	Asahimas flat glass	amfg	0.96797	1.06734	0	0.63171	0
17	Asiaplas industries	apli	0.68033	0.82724	0.78092	0	0
18	Berlina	brna	0.7392	0.72015	0.66554	0.77735	0.97672
19	Leyand international	lapd	0	2.45147	0	0	0
20	Titan kimia nusantara	fpni	1.20421	0	0	0	0
21	Alumindo light metal industry	almi	0	0	0	0	0.83778
22	Betonjaya manunggal	bton	1.20102	0	0	0	0
23	Citra tubindo	ctbn	1.38949	0	0	0	0
24	Indal aluminium industry	inai	0.96171	0	0	0	0
25	Jakarta kyoei steel work	jksw	2.40004	0	0	0	0

26	Jaya pari steel	jprs	1.55946	0.93261	0.92545	0.82571	1.34615
27	Lion metal work	lion	0.7563	0	0	0.56308	0.96627
28	Pelangi indah canindo	pico	1.20941	0	0	0	0
29	Kabelindo murni	kblm	0.77854	0	0	0	0
30	Sumi indo kabel	ikbi	0.78232	0.78811	0.51566	0.99554	0.99529
31	Metrodata electronic	mtdl	0.82944	0	0	0	0
32	Astra international	asii	0	0	0	0.24754	2.07744
33	Astra otopart	auto	1.01463	0	0	0.50757	0.659
34	Goodyear indonesia	gdyr	1.13437	1.81302	0.90626	0	0
35	Hexindo adiperkasa	hexa	1.36878	1.13034	0	0	0
36	Indo kordsa	bram	0.92047	0.84725	0.77129	0.56673	0.80815
37	Indomobil sukses internasional	imas	1.08093	0	0	0	0
38	Nipress	nips	0.66487	0.74746	0.71349	0.70426	0.77439
39	prima alloy steel	pras	0.86158	0.87183	0.86218	0.98383	0.80393

			Operating Performance (ROE)				
No	Company Name	Code	2006	2007	2008	2009	2010
1	Indofood sukses makmur	indf	0	0	0	0	0.17593
2	Siantar top	sttp	0	0.04349	0	0.10154	0.09534
3	Tunas baru lampung	tbla	0.06118	0.10399	0.07126	0.13913	0.19986
4	Gudang garam	ggrm	0	0.10224	0.12117	0.18882	0.19561
5	Indo acidatama	srsn	0.14566	0	0	0	0
6	Pan brothers te	pbrx	0.08247	0	0	0	0
7	Barito pacific	brpt	0.00677	0	0	0	0
8	Akr corporindo	akra	0.12327	0.01497	0.1306	0.15779	1
9	Budi acid jaya	budi	0.09038	0	0	0	0
10	Lautan luas	ltls	0.05858	0.12017	0.18245	0.11256	0.10634
11	Sorini agro asia corporindo	sobi	0.0777	0.21342	0	0	0
12	Duta pertiwi nusantara	dpns	-0.0243	0	0	0	0
13	Ekadharma internasional	ekad	0.09959	0	0	0	0
14	Intanwijaya internasional	inci	-0.0304	0.02478	0.02153	-0.0582	-0.16
15	Aneka kemasindo utama	akku	0	-0.0011	0	0	0
16	Asahimas flat glass	amfg	-0.015	0.11825	0	0.044	0
17	Asiaplas industries	apli	0.00049	-0.0352	-0.0384	0	0
18	Berlina	brna	-0.037	0.06631	0.10799	0.11272	0.17264
19	Leyand international	lapd	0	0.00624	0	0	0
20	Titan kimia nusantara	fpni	-0.772	0	0	0	0
21	Alumindo light metal	almi	0	0	0	0	0.08644

	industry						
22	Betonjaya manunggal	bton	0.03191	0	0	0	0
23	Citra tubindo	ctbn	0.28523	0	0	0	0
24	Indal aluminium industry	inai	0.23337	0	0	0	0
25	Jakarta kyoei steel work	jksw	-0.0157	0	0	0	0
26	Jaya pari steel	jprs	0.14966	0.18841	0.18333	0.00706	0.09478
27	Lion metal work	lion	0.13782	0	0	0.14756	0.14862
28	Pelangi indah canindo	pico	0.0326	0	0	0	0
29	Kabelindo murni	kblm	0.0692	0	0	0	0
30	Sumi indo kabel	ikbi	0.11887	0.17604	0.19262	0.05836	0.00934
31	Metrodata electronic	mtdl	0.07921	0	0	0	0
32	Astra international	asii	0	0	0	0.25167	0.29134
33	Astra otopart	auto	0.15128	0	0	0.23943	0.29558
34	Goodyear indonesia	gdyr	0.09031	0.14155	0.00274	0	0
35	Hexindo adiperkasa	hexa	0.1141	0.15107	0	0	0
36	Indo kordsa	bram	0.02197	0.04379	0.09496	0.07343	0.12508
37	Indomobil sukses internasional	imas	0.00649	0	0	0	0
38	Nipress	nips	0.08795	0.0557	0.01258	0.02902	0.08546
39	prima alloy steel	pras	-0.0218	0.02141	-0.1291	-0.4611	0.00226

			Operating Performance (ROA)				
No	Company Name	Code	2006	2007	2008	2009	2010
1	Indofood sukses makmur	indf	0	0	0	0	0.06246
2	Siantar top	sttp	0	0.03014	0	0.07485	0.06566
3	Tunas baru lampung	tbla	0.02581	0.03957	0.0226	0.04962	0.06756
4	Gudang garam	ggrm	0	0.06071	0.07812	0.1269	0.13487
5	Indo acidatama	srsn	0.07077	0	0	0	0
6	Pan brothers te	pbrx	0.0176	0	0	0	0
7	Barito pacific	brpt	0.00413	0	0	0	0
8	Akr corporindo	akra	0.05388	0.00547	0.04309	0.04534	0.04056
9	Budi acid jaya	budi	0.0222	0	0	0	0
10	Lautan luas	ltls	0.01621	0.03357	0.0424	0.02847	0.02422
11	Sorini agro asia corporindo	sobi	0.04326	0.11179	0	0	0
12	Duta pertiwi nusantara	dpns	-0.018	0	0	0	0
13	Ekadharma internasional	ekad	0.07722	0	0	0	0
14	Intanwijaya internasional	inci	-0.0268	0.02152	0.01958	-0.0551	-0.1534
15	Aneka kemasindo utama	akku	0	-0.0007	0	0	0
16	Asahimas flat glass	amfg	-0.0106	0.08607	0	0.03412	0

No	Company Name	Code					
17	Asiaplas industries	apli	0.00025	-0.0155	-0.0175	0	0
18	Berlina	brna	-0.0133	0.02682	0.04491	0.03994	0.0631
19	Leyand international	lapd	0	0.00262	0	0	0
20	Titan kimia nusantara	fpni	-0.0974	0	0	0	0
21	Alumindo light metal industry	almi	0	0	0	0	0.02907
22	Betonjaya manunggal	bton	0.02429	0	0	0	0
23	Citra tubindo	ctbn	0.13364	0	0	0	0
24	Indal aluminium industry	inai	0.02346	0	0	0	0
25	Jakarta kyoei steel work	jksw	0.02111	0	0	0	0
26	Jaya pari steel	jprs	0.14149	0.15464	0.12385	0.00542	0.06916
27	Lion metal work	lion	0.10998	0	0	0.12387	0.12712
28	Pelangi indah canindo	pico	0.00694	0	0	0	0
29	Kabelindo murni	kblm	0.0376	0	0	0	0
30	Sumi indo kabel	ikbi	0.07517	0.13145	0.1535	0.05111	0.00766
31	Metrodata electronic	mtdl	0.02805	0	0	0	0
32	Astra international	asii	0	0	0	0.01129	0.00013
33	Astra otopart	auto	0.09315	0	0	0.1654	0.2043
34	Goodyear indonesia	gdyr	0.05584	0.07314	0.00079	0	0
35	Hexindo adiperkasa	hexa	0.03274	0.04109	0	0	0
36	Indo kordsa	bram	0.01197	0.02518	0.05666	0.05343	0.08988
37	Indomobil sukses internasional	imas	0.00028	0	0	0	0
38	Nipress	nips	0.0365	0.01752	0.00477	0.01172	0.03751
39	prima alloy steel	pras	-0.0047	0.00511	-0.0267	-0.0861	0.00066

No	Company Name	Code	Stok Return				
			2006	2007	2008	2009	2010
1	Indofood sukses makmur	indf	0	0	0	0	0.38961
2	Siantar top	sttp	0	-0.0152	0	0.76667	0.5283
3	Tunas baru lampung	tbla	0.44444	0.32308	-0.5116	1.09524	-0.0341
4	Gudang garam	ggrm	0	-0.2804	-0.2208	3.20833	0.62178
5	Indo acidatama	srsn	-0.1071	0	0	0	0
6	Pan brothers te	pbrx	0.61039	0	0	0	0
7	Barito pacific	brpt	0.39286	0	0	0	0
8	Akr corporindo	akra	0.75439	-0.55	-0.5926	0.63636	0.64444
9	Budi acid jaya	budi	0.75238	0	0	0	0
10	Lautan luas	ltls	-0.2	-0.0682	0.82927	0.02667	0
11	Sorini agro asia corporindo	sobi	0.78879	-0.3301	0	0	0

12	Duta pertiwi nusantara	dpns	-0.5109	0	0	0	0
13	Ekadharma internasional	ekad	-0.5588	0	0	0	0
14	Intanwijaya internasional	inci	-0.2394	-0.2037	-0.3953	0.07692	0.75
15	Aneka kemasindo utama	akku	0	1.25641	0	0	0
16	Asahimas flat glass	amfg	-0.3034	0.30693	0	0.20915	0
17	Asiaplas industries	apli	0.26667	0.60526	-0.1803	0	0
18	Berlina	brna	-0.13	0.13793	-0.5909	0.58025	1.39063
19	Leyand international	lapd	0	-0.1111	0	0	0
20	Titan kimia nusantara	fpni	0	0	0	0	0
21	Alumindo light metal industry	almi	0	0	0	0	0.49123
22	Betonjaya manunggal	bton	0.02857	0	0	0	0
23	Citra tubindo	ctbn	0.88889	0	0	0	0
24	Indal aluminium industry	inai	0.3125	0	0	0	0
25	Jakarta kyoei steel work	jksw	0.56923	0	0	0	0
26	Jaya pari steel	jprs	1.34568	-0.8579	0.18519	-0.125	1.10714
27	Lion metal work	lion	-0.0244	0	0	-0.16	1.28571
28	Pelangi indah canindo	pico	2.30769	0	0	0	0
29	Kabelindo murni	kblm	-0.0235	0	0	0	0
30	Sumi indo kabel	ikbi	0.77778	0.2875	-0.3689	1.46154	0
31	Metrodata electronic	mtdl	-0.0706	0	0	0	0
32	Astra international	asii	0	0	0	1.88961	0.30112
33	Astra otopart	auto	-0.1034	0	0	1.49123	1.00704
34	Goodyear indonesia	gdyr	0.00602	1.2515	-0.7394	0	0
35	Hexindo adiperkasa	hexa	-0.0693	-0.2979	0	0	0
36	Indo kordsa	bram	0.6	-0.05	-0.0526	-0.3333	0.70833
37	Indomobil sukses internasional	imas	-0.1739	0	0	0	0
38	Nipress	nips	0.25714	0.02273	0.67778	0.12583	1.11765
39	prima alloy steel	pras	-0.392	0.34211	-0.3627	0.87692	-0.377

APPENDIX 3: TWO SAMPLE T-TEST EXPENSE RATIO

Two-Sample T-Test and CI: Inst-Expense Ratio, Mng-Expense Ratio

```
Two-sample T for Inst-Expense Ratio vs Mng-Expense Ratio

                     N     Mean    StDev   SE Mean
Inst-Expense Ratio  47    0.171    0.144    0.021
Mng-Expense Ratiio  39   0.0990   0.0655    0.010
```

```
Difference = mu (Inst-Expense Ratio) - mu (Mng-Expense Ratio)
Estimate for difference:  0.071911
95% lower bound for difference:  0.032802
T-Test of difference = 0 (vs >): T-Value = 3.07  P-Value = 0.002  DF = 66
```

APPENDIX 4: TWO SAMPLE T-TEST ASSET UTILIZATION RATIO

Two-Sample T-Test and CI: Inst-Asset Utilization, Mng-Asset Utilization

```
Two-sample T for Inst-Asset Utilization Ratio vs Mng-Asset Utilization
Ratio

                         N    Mean   StDev   SE Mean
Inst-Asset Utilization   47   1.143  0.606    0.088
Mng-Asset Utilization    39   1.147  0.532    0.085


Difference = mu (Inst-Asset Utilization Ratio) - mu (Mng-Asset
Utilization Ratio)
Estimate for difference:  -0.003461
95% upper bound for difference:  0.200664
T-Test of difference = 0 (vs <): T-Value = -0.03  P-Value = 0.489  DF =
83
```

APPENDIX 5: TWO SAMPLE T-TEST FIRM VALUE

Two-Sample T-Test and CI: Inst-Firm Value, Mng-Firm Value

```
Two-sample T for Inst-Firm Value vs Mng-Firm Value

                  N    Mean   StDev   SE Mean
Inst-Firm Value   47   1.465  0.932     0.14
Mng-Firm Value    39   1.165  0.496    0.079


Difference = mu (Inst-Firm Value) - mu (Mng-Firm Value)
Estimate for difference:  0.300466
95% lower bound for difference:  0.037969
T-Test of difference = 0 (vs >): T-Value = 1.91  P-Value = 0.030  DF = 72
```

APPENDIX 6: TWO SAMPLE T-TEST ROE

Two-Sample T-Test and CI: Inst-ROE, Mng-ROE

```
Two-sample T for Inst-ROE vs Mng-ROE

            N    Mean   StDev   SE Mean
Inst-ROE    47   0.082  0.296    0.043
Mng-ROE     39   0.069  0.165    0.026
```

```
Difference = mu (Inst-ROE) - mu (Mng-ROE)
Estimate for difference:  0.013007
95% lower bound for difference:  -0.071406
T-Test of difference = 0 (vs >): T-Value = 0.26  P-Value = 0.399  DF = 74
```

APPENDIX 7: TWO SAMPLE T-TEST ROA

Two-Sample T-Test and CI: Inst-ROA, Mng-ROA

```
Two-sample T for Inst-ROA vs Mng-ROA

          N    Mean   StDev  SE Mean
Inst-ROA  47  0.0313  0.0881   0.013
Mng-ROA   39  0.0358  0.0478   0.0077


Difference = mu (Inst-ROA) - mu (Mng-ROA)
Estimate for difference:  -0.004498
95% lower bound for difference:  -0.029418
T-Test of difference = 0 (vs >): T-Value = -0.30  P-Value = 0.618  DF =
73
```

APPENDIX 8: TWO SAMPLE T-TEST STOCK RETURN

Two-Sample T-Test and CI: Inst-Stock Return, Mng-Stock Return

```
Two-sample T for Inst-Stock Return vs Mng-Stock Return

                     N   Mean  StDev  SE Mean
Inst-Stock Return 47  0.275  0.503    0.073
Mng-Stock Return  39  0.326  0.508    0.081


Difference = mu (Inst-Stock Return) - mu (Mng-Stock Return)
Estimate for difference:  -0.051084
95% lower bound for difference:  -0.233522
oT-Test of difference = 0 (vs >): T-Value = -0.47  P-Value = 0.679  DF =
80
```