INVENTORY CHANGE AND STOCK PRICES: AN EMPIRICAL INVESTIGATION

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A BACHELOR DEGREE THESIS

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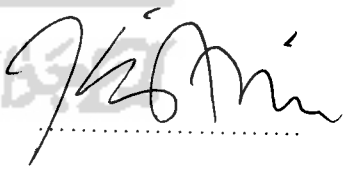
Yuni Nustini, Dra., MAFIS., Ak. ..... 

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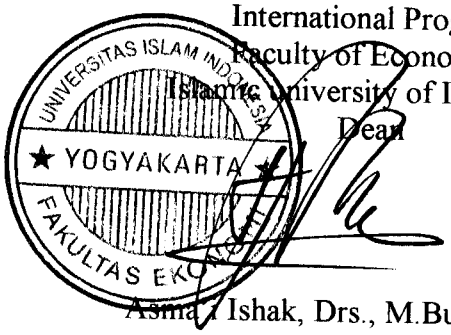

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The researcher,

Nur Intan Kemalahati

Thank you...

Mom Dad.

My Brothers Sisters,

Kushi, Boris, Sylvester

For All the Pray, Support, and Courage

I love them so much...

"O ye who believe! Seek help with patient Perseverance and prayer: For Allah is with those who patient Perserve" (Al Baqarah: 153)

"Verily, with every difficulty there is relief. Therefore, when thou art free (form thine immediate task), still labour hard. And to thy Lord turn all thy attention" (Al Insyirah: 6-8)

"Pursue knowledge, because if you are rich it will make easy on you, and if you are poor then knowledge will take care of you" (Ali bin Abi Thalib)

"We must do our part, Allah will do His Part" (M. Amien Rais)

When there's love, there's life...

When there's a will, there's a way...(Me...)

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Abstract

Nur Intan Kemalahati. *Inventory Changes and Stock Prices: An Empirical Investigation.* International Program. Accounting Department. Economics Faculty. UII. Yogyakarta 2006.

This study examines the effect of the informativeness of change in inventory on firm valuation. A firm's change in inventory is informative if its percentage change in cost of goods sold is positively and significantly associated with its lag one percentage of production added to inventory (a measure of change in inventory). Sample firms are divided into two groups: firms with informative change in inventory and other firms without informative change in inventory. Analyses then are performed to examine the association between stock price and earnings. Results consistently show that the association is lower for firms with informative change in inventory. Thus, knowledge on the informativeness of change in inventory is useful for firm valuation. Then, the implication is that investors and analysts do not have to rely more heavily on earnings figures when analyzing firms with informativeness of change in inventory.

Key words: firm valuation, change in inventory, earnings, and stock prices.

Abstrak

Nur Intan Kemalahati. *Inventory Changes and Stock Prices: An Empirical Investigation.* Program International. Jurusan Akuntansi. Fakultas Ekonomi. UII. Yogyakarta. 2006.

Skripsi ini mempelajari tentang efek informasi dari perubahan dalam persediaan terhadap penilaian perusahaan. Perubahan persediaan dalam suatu perusahaan bersifat informatif jika persentase perubahan dalam harga pokok penjualan barang bersifat positif dan secara signifikan berhubungan dengan tingkat 1 (satu) persen dari produksi yang ditambahkan ke dalam persediaan (penentu dari perubahan dalam persediaan). Sampel perusahaan terbagi dalam 2 (dua) kelompok, yaitu: perusahaan dengan perubahan dalam persediaan yang bersifat informative, dan perusahaan dengan persediaan yang tidak bersifat informative. Analisa kemudian ditampilkan untuk memeriksa/mempelajari hubungan antara harga stok dan pendapatan. Hasilnya secara konsisten menunjukkan bahwa hubungannya rendah untuk perusahaan dengan perubahan dalam persediaan. Maka, pengetahuan akan keinformatifan dari perubahan dalam persediaan berguna untuk penilaian terhadap perusahaan. Kemudian, implikasinya yaitu para investor dan analis tidak perlu terlalu menitikberatkan pendapatan ketika sedang menganalisa perusahaan yang memiliki keinformatifan terhadap perubahan dalam persediaan.

Kata kunci: penilaian perusahaan, perubahan dalam persediaan, pendapatan, dan harga stok

CHAPTER I

INTRODUCTION

1.1. Background of the Study

In running its activities, company always dealt with production activity, especially for Manufacturing Company. To keep the business run stable, it is required for the Manufacturing Company to produce inventory. From this point of view, inventory is one of the assets of a company that can be fundamental value to determine the liquidity cash of a company. Therefore, the changes of inventory would bring the information that might have effect in doing firm valuation.

Inventory plays important role in a company. It is related to the market sales. Inventory has a strong connection with supply, demand and sales. If its future demand is expected to be decreased, then it sells as much as possible its inventory now, i.e., inventory for the year is decreased. Thus, it has strong association with future sales. The changes of inventory are also determining the future earnings. If a firm's future demand is expected to be decreased, then its future earnings are also expected to be decreased. So a firm can be described as a production smoothing firm if its variance of production is smaller than its variance of sales (Blinder, 1986). And the increasing earnings would determine the welfare of the shareholders. So, the changes of inventory may convey good news to a firm and would be useful information to make firm valuation.

The objective of maximizing the welfare of the shareholders can be achieved by maximizing the present value of all the expected profits that will be

received by the shareholders in the following years. "The welfare of shareholders will automatically increase when the price of the stock they own increase" (Sartono, 1996:11). The higher the stock price, the higher the level of welfare will be for the shareholders.

In relation to the brief explanation above, a firm can also be described as stockout firm if its variance of production is higher than its variance of sales (Blinder, 1986). A decrease in inventory indicates a high frequency of stockouts, and a high level of demand. Therefore, it may also convey bad news to a firm and would become useful information to make a better inventory planning in the future.

Thus, the deeper analysis is focused on the comparison of stock price-earnings association between two sample groups. In sample firms, it is using inventory valuation methods, one of the 12 fundamental signals. That is an increase in inventory, which is measured by percentage change in inventory value minus percentage change in sales (referred to by Jiambalvo, Noreen and Shelvin (1997) as PCIS). Change in inventory which is measured by CPAI, presents useful informativeness on firm valuation when the percentage change in cost of goods sold is positively and significantly associated with its lag one percentage change of production added to inventory. Moreover, this kind of information would be an indicator for investors and analysts, so they can rely more heavily on earnings figures when analyzing firms with informative change in inventory. Then this information (increase in inventory) may either convey good or bad news to the market. Therefore, we can find out whether a firm can be described as a

production smoothing or stockout firm. This research was conducted by Nur Intan K.

The concepts in the prior studies, particularly those in Lev and Thiagarajan (1993) and Jiambalvo, Noreen, and Shelvin (1997), are reconciled to define the informativeness of change in inventory. Change in inventory should affect not only the cash component of earnings (Comiskey, Mulford and Choi, 1994/1995; Sloan, 1996; Ozanian and Fluke, 2001) but also the persistence/sustainability of earnings (Comiskey, Mulford and Choi, 1994/1995; Revsine, Collins and Johnson, 1995), i.e., it affects the quality of earnings. It is hypothesized that the association between stock price and earnings is higher for the firms in Group 1 because:

1. Besides affecting the cash component of earnings, their current inventory change is proportionate and can better support future cost of goods sold and sales (Lev and Thiagarajan, 1993), i.e., the change has a higher sustainability.
2. The quality of reported earnings derived from subtracting cost of goods sold and other expenses from sales, therefore, is also higher.

Besides, Bernard and Noel (1991) have investigated the predictive ability of inventory level on sales and earnings. Whether there is any significant relationship between future sales, future earnings, and also with stock price. Their results indicate that increase in finished goods inventory does not have any relation to future sales, but is negatively associated with future earnings. Given the overwhelming empirical evidence on the positive association between

earnings and stock price, increase in inventory most likely is also negatively associated with stock price.

Lev and Thiagarajan (1993) had made a research that had generated the 12 signals for fundamental analysis One of the signals is the increase in inventory, which is measured by percentage change in inventory value minus percentage change in sales (referred to by Jiambalvo, Noreen and Shelvin (1997) as PCIS). Their result shows that the increase in inventory is negatively associated with 12 months excess stock returns, i.e., a result that is consistent with that implied in Bernard and Noel (1991).

Jiambalvo, Noreen, and Shelvin (1997) have also studied the association between cumulative abnormal returns (CAR) over a 12 months window with the increase in inventory, measured by the change in percentage of production added to inventory (CPAI). Their result shows that CPAI is positively associated with CAR, i.e., a result seems to be inconsistent with that in Lev and Thiagarajan (1993). Jiambalvo, Noreen, and Shelvin (1997); however, they are unable to explain the inconsistency. They conclude that the measures for increase in inventory in the two studies (PCIS and CPAI) are different; PCIS is negatively associated with CAR while CPAI is positively associated with CAR, but the product moment correlation between PCIS and CPAI is positive and significant. Thus, the increase in inventory is a significant fundamental signal regardless of the different measures and the seemingly inconsistent empirical results.

Bernard and Noel (1991) have also investigated the predictive ability of work-in-process inventory under the lead time model which is different from the

production smoothing model and the stockout model. Results show that work-in-process inventory level is positively associated with future sales, but it is not associated with future earnings. Lev and Thiagarajan (1993) call this measure a disproportionate inventory increase. As stated in Lev and Thiagarajan's (1993) in the section of the previous study, that in theory, the cost of goods sold, instead of sales, should be used. The empirical results from using cost of goods sold and sales are similar.

Percentage of production added to inventory is the increase in inventory quantity divided by production quantity. It is a measure of the percentage increase in inventory. CPAI is the change of this percentage. The results are seemingly inconsistent because Lev and Thiagarajan (1993) show that CAR is negatively and significantly associated with increase in inventory. Whereas, Jiambalvo, Noreen and Shelvin (1997) show that CAR is positively and significantly associated with increase in inventory. It is found in the two studies that the measures of increase in inventory are different.

The similar studies, in overseas, had also been done by Harry E. Merriken and Walter J. Reinhart (1990). They were studying about The Implication of Tax Reforms on Firm Valuation and Management Decisions. The purpose of this study is to develop a model and methodology to measure market reaction to firm behavior following tax law changes and to determine whether the impact is favorable or unfavorable on firm valuation. This model will allow the management of a firm to anticipate the impact of government policy decisions that alter the fundamentals of firm valuation. An important contribution of this study is

the focus on relative values rather than on share price since certain conventions such as inventory valuation produce countervailing effects. Fiscal policy measures directly linked to investment in real assets such as accelerated depreciation receives predictable market reaction. Thus the study provides a means of anticipating the impact of public policy in influencing the creation of wealth in the private sector. Thus, they had found that the implication for future changes is underscoring the importance of the tax savings of accelerated depreciation. They clearly indicate that the most reliable and consistent method for management to improve value is through the fundamental variables that affect profitability, growth in profits, and leverage. The market discounts discretionary inventory valuation and fully incorporates the impact of accelerated cost recovery system (ACRS) in the year in which the depreciation method was accelerated.

Another similar study also had been done by Wei Zhang, Qing Cao and Marc J. Schniederjans (2004). They were studying about Neural Network Earnings per Share Forecasting Model: A Comparative Analysis of Alternative Methods. This study is focused on comparison on the multivariate models to examine whether the neural network models incorporating the fundamental accounting variables can generate more accurate forecasts of future earnings than the models assuming on a linear combination of these same variables. Thus, they had found that the application of the neural network approach incorporating fundamental accounting variables results in forecasts that are more accurate than linear forecasting models. The results also reveal limitations of the forecasting

capacity of investors in the security market when compared to neural network models.

While in Indonesia, the similar studies are not yet revealed by Indonesian researcher. But there are many overseas researchers using sample firms in Indonesia. One of them is studied by Paquita Y. Davis-Friday, Li Li Eng, and Chao-Shin Liu (December 2002). They were studying about The Effect of Corporate on the Valuation of Book Value and Earnings during the Asian Financial Crisis. This study examines the value relevance of earnings and book values in four Asian countries, Indonesia, South Korea, Malaysia and Thailand, in the period surrounding the Asian financial crisis. Specifically, they examined the impact of the economic environment on the value relevance of book value and earnings, controlling for the quality of financial reporting and corporate governance mechanism. Their results indicate that the value relevance of earnings in Indonesia and Thailand was significantly reduced during the Asian financial crisis while the value relevance of book values increased. In Malaysia, the value relevance of both earnings and book value decreased during the crisis. In Korea, neither book value nor earnings was significantly impacted by the crisis. Their results indicate that the level of certain corporate governance mechanism and financial reporting quality have an impact on how the crisis affected the value relevance of earnings and book values. Specifically, the value relevance of book values decreases when the rule of law is lower, when the level of ownership concentration is higher, and when the quality of audit reports is lower. Finally, their results indicate that Korea's tax-based accounting standards help to mitigate

the effect of the financial crisis on the value relevance of book values, but not the value relevance of earnings.

1.2. Problem Identification

This study examines the effect of the informativeness of change in inventory on firm valuation. A firm's change in inventory is informative if its percentage change in cost of goods sold is significantly associated with its lag one percentage of production added to inventory (a measure of change in inventory). Sample firms are divided into two groups: firm with informative change in inventory, and other firms. Analyses then are performed to examine the association between stock price and earnings.

1.3. Problem Formulation

Based on the explanation mentioned in the study background, the main problem stated here is: Whether the informativeness of change in inventory affects stock prices.

1.4. Problem Limitation

Based on the existing opinion from Bernard and Noel, Lev and Thiagarajan; Jiambalvo, Noreen and Shelvin; Ozanian and Fluke that are being used in this research paper, so, this research, will take a sample of firms which is

basically divided into two groups: firm with informative change in inventory, and other firms, based on fundamental analysis. It would be done as knowledge on the informativeness of change in inventory, whether the effect of increasing in inventory would convey good or bad news, which will be useful for making firm valuation. In order to provide a clear description and to be able to impart useful information, the limitations of the study are indicated below:

1) They are manufacturing firm.
2) Sample that will be used for the research are only two groups, those are firms with informative change in inventory (firms with positive and significant association between percentage change in cost of goods sold and lag one percentage of production added to inventory), and other firms.
3) Fundamental analysis serves as the base of the primary approach of this research.
4) One of the 12 fundamental value drivers that would be used in this research is increase in inventory.
5) Firm group 1 is using annual and pooled regressions under both the levels and changes approaches.
6) This study is using firm valuation analyses which consist of two approaches; those are the levels approach and the changes approaches (e.g., Kothari, 1992).
7) This study is investigating the association between CAR (cumulative abnormal returns) with CPAI (change in percentage of production added by inventory).

8) This study is investigating the association between PCIS (Percentage change in inventory value minus percentage change in sales) with CAR (Cumulative Abnormal Returns).

9) This study is investigating the predictive ability of inventory level on sales and earning (based on Bernard and Noel investigation) with firm value.

10) The association between change in inventory in this year and change in sales in the next year, i.e., inventory planning as the formulation for the effect of inventory change on persistency/sustainability of earnings.

11) To define the informativeness of change in inventory, focus has to be placed into two aspects of earnings quality: cash component of earnings (Comiskey, Mulford and Choi, 1994/1995; Sloan, 1996; Ozanian and Fluke, 2001) and persistency/sustainability of earnings (Comiskey, Mulford and Choi, 1994/1995; Revsine, Collins and Johnson, 1999).

1.5. Research Objectives

The objective of this research is to test the informativeness of change in inventory on stock prices from year 2003 to 2004.

1.6. Research Contributions

Research is a kind of way to acquire information about the problem on the company that concerned with it, thus this research can be used by any company as

well as writer or researcher. The benefits can be taken from this research by those stated as follows:

1. Investors and analysts can rely more heavily on earnings figures when analyzing firms with informative change in inventory.
2. Managers, as an additional consideration in making investment and financing decisions that are designed to maximizing the firm's stock price.
3. Companies, as an additional guideline to show the importance of publishing their financial statements in order to achieve stockholder wealth maximization by maximizing the price of the firm's common stock.
4. The researcher, it will increase her experience in researching and writing, improve her understanding and knowledge of that being studied and the opportunity to implement the theory that the writer studied in the university.
5. The reader, giving sequence knowledge and new a broader perspective especially to students in accounting department, particularly in analyzing how informativeness of the change in inventory will give an effect in doing firm valuation.

1.7. Definition of Terms

The author gives the definition of terms in order to make the reader understand about what they are going to read from the thesis.

- Fundamental analysis or valuation analysis is a set of methods for determining the value of an investment.

- Valuation model is the architecture for fundamental analysis that directs what's to be forecast as a payoff, what information is relevant for forecasting, and how forecasts are converted to a valuation.
- Value of the equity is the value of the payoffs a firm is expected to yield for its shareholders (its owners).
- Value of the firm (or enterprise value or unlevered value) is the value of the payoffs a firm is expected to yield for all its claimants.

CHAPTER II

REVIEW OF RELATED LITERATURE

2.1. Financial Reporting

The Statement of Financial Accounting Concepts is one of a series of publications in the Board's conceptual framework for financial accounting and reporting. Statements in the series are intended to set forth objectives and fundamentals that will serve as the basis for development of financial accounting and reporting standards. The objectives identify the goals and purposes of financial reporting. The fundamentals are the underlying concepts of financial accounting—concepts that guide the selection of transactions, events, and circumstances to be accounted for; their recognition and measurement; and the means of summarizing and communicating them to interested parties. Concepts of that type are fundamental in the sense of that other concepts flow from them and repeated reference to them will be necessary in establishing, interpreting, and applying accounting and reporting standards.

The conceptual framework is a coherent system of interrelated objectives and fundamentals that is expected to lead to consistent standards and that prescribes the nature, function, and limits of financial accounting and reporting. It is expected to serve the public interest by providing structure and direction to financial accounting and reporting to facilitate the provision of evenhanded financial and related information that helps promote the efficient allocation of

scarce resources in the economy and society, including assisting capital and other markets to function efficiently.

Establishment of objectives and identification of fundamental concepts will not directly solve financial accounting and reporting problems. Rather, objectives give direction, and concepts are tools for solving problems.

General purpose financial statements are defined in the Preface to International Financial Reporting Standards as follows:

1. IFRSs apply to all general purpose financial statements. Such financial statements are directed towards the common information needs of a wide range of users, for example, shareholders, creditors, employees and the public at large. The objective of financial statements is to provide information about the financial position, performance and cash flows of an entity that is useful to those users in making economic decisions.

2. A complete set of financial statements includes a balance sheet, an income statement, a statement showing either all changes in equity or changes in equity other than those arising from capital transactions with owners and distributions to owners, a cash flow statement, and accounting policies and explanatory notes.

3. The objective of IAS 1 Presentation of Financial Statements is to prescribe the basis for the presentation of general purpose financial statements, to ensure comparability both with the entity's financial statements of previous periods and with the financial statements of other entities. IAS 1

specifies the purpose of financial statements and the components of a complete set of financial statements are as follows:

Financial statements are a structured representation of the financial position and financial performance of an entity. The objective of general purpose financial statements is to provide information about the financial position, financial performance and cash flows of an entity that is useful to a wide range of users in making economic decisions. Financial statements also show the results of management's stewardship of the resources entrusted to it. To meet this objective, financial statements provide information about an entity's:

(a) Assets;

(b) Liabilities;

(c) Equity;

(d) Income and expenses, including gains and losses;

(e) Other changes in equity; and

(f) Cash flows.

This information, along with other information in the notes, assists users of financial statements in predicting the entity's future cash flows and, in particular, their timing and certainty.

2.2. Stock Price Determination and Firm Valuation

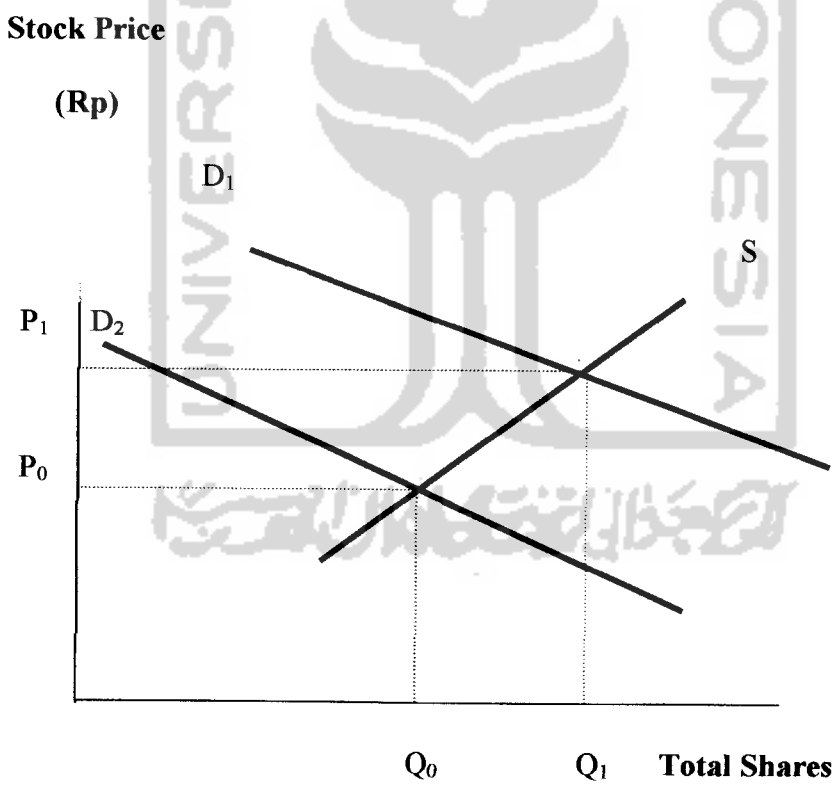
Factors that Influence the Price of a Stock

Stock as one of the securities that is traded on the stock exchange is "the proportionate share in the ownership held by an individual stockholder" (Webster,

1996). Investors are willing to pay a certain price for certain stock based on the valuation and that they are expecting to receive higher returns than what they have paid for. "Basically, stock price is determined by the interaction between supply and demand of those stocks" (Sartono 1996:46). The stock price implied here is as big as the present value of the expected cash flows that will be received. In figure 2.1, we can see the interaction between supply and demand of a stock, which influences the stock price.

Figure 2.1

Determining the Stock Price



Source: Sartono, Agus R., 1996, Manajemen Keuangan, BPFE, Yogyakarta.

The price of P is the beginning price for some stocks of Q that is shown when supply and demand meet. If there is a change on the investors' perception as a whole, the demand curve will shift to up or down. However, the demand curve will not change if there is increase on demand of stock. The increase on demand of stock will affect the price to increase, however it is still on the same curve. From this figure, the movement of the demand curves that shift up will cause the stock price to increase and the demand of stocks will be higher. This kind of movement occurs because the expected profitability level increases or because of a decrease in the level of risk. The competitive capital market exists because there is pressure on demand and supply continuously, therefore the stock price adjusts quickly with all information changes. There are no individual investors that are capable of influencing the price on the stock market, which is the reason why investors can not get profits consistently.

The demands to purchase and supply to sell the stock are more influenced by the consideration of buyers or sellers about the internal and external condition of the company. The internal perspective, as defined by Sartono (1996 : 17) consist of: "earnings per share of the projected stocks, timing of receiving profits, level of business risks, use of debt, dividend policies, and other external factor". Meanwhile Husnan (1996: 272) states that "the price of stocks is affected by two main elements, which are r (level of profitability) and D (dividend). If r increases and D is constant, then the stock price will go down. When D increases and r is constant then the stock price will go up". In knowing what factors influencing the stock price, we need to identify the factors that affect r and D. The factors that

influence r are the risk or beta stock and the free risk level of profitability. Furthermore, some things that affect how big or small the stock price are the dividend and the ability of the company to obtain bigger profits. The company can only share bigger dividends if the company can produce bigger profits. In this condition, the price of a stock will increase. For the external side, some factors that can affect the price of a stock are the level of tax laws, the level of interest rate, monetary and fiscal policies, the level and rate of inflation, political factors, government policies in certain industries, competition, etc.

Brigham and Houston (1998: 23) state that "managers should take steps to maximize the firm's stock price, in maximizing the firm's stock price it is decided by factors that influence and affect that stock". In valuing the stock price, every investor has different opinion on valuing the total expected dividend and the level of expected profits. The difference in this valuation is affected by the investors' optimism to the firm. Furthermore, these optimistic differences will cause two different sides that have different objectives.

First are the buyers of stocks and the second is the seller of the stocks. Buyers expect that there will be an increase of price after purchasing the stocks, while sellers expect that there will be a decrease of price on the stocks that they have sold. Jones (1998: 289) stated that "A security's estimated (intrinsic) value determines the price that investors place on it in the open market". If the intrinsic value is higher than the stock price, then this stock is considered to be undervalued, and investors should buy some stocks or hold their stocks. In contrast, if the intrinsic value is smaller than the stock price, then the stock price is

considered to be overvalued, and investors should avoid buying these stocks or sell them if they have this kind of stocks. If the intrinsic value is equal to the stock price, it is considered to be correct and usually there is no transaction for this kind of stock.

These conditions are showing that the price of a stock is changing all the time because each investor holds a different opinion on the valuing of and the intrinsic value of a stock. The valuation of a stock is affected by how big is the expectation, optimism, or the objective of the buyers and the sellers of stocks.

The value of either a stock or earnings has an important meaning to a firm. The increasing of earnings will determine the welfare of the shareholders, because the increasing of earnings can be a sign/information to a firm that their firm is growing as a production smoothing firm. Furthermore, this kind of information will have an effect for doing a firm valuation. Thus, this kind of information can be a sign that this firm can have good distribution of dividend to shareholders. Meaning to say, this firm will be able to maximize the welfare of the shareholders by maximizing the present value of all the expected profits that will be received by the shareholders in the following years. "The welfare of shareholders will automatically increase when the price of the stock they own increase" (Sartono, 1996:11). Firm valuation is necessary need in purpose to maximize the wealth of shareholders and the firm itself.

Empirical evidence indicates that increasing shareholder value does not conflict with the long-run interests of other stakeholders. Winning companies seem to create relatively greater value for all stakeholders: customers, labor, the

government (via taxes paid), and suppliers of capital. Yet, there are additional reasons—more conceptual in nature, but equally compelling—to adopt a system that emphasizes shareholder value. First, value is the best metric for performance that we know. Second, shareholders are the only stakeholders of a corporation who simultaneously maximize everyone's claim in seeking to maximize their own. And finally, companies that do not perform will find that capital flows toward their competitors.

Value (discounted cash flows) is best for it is the only measure that requires complete information. To understand value creation one must use a long-term point of view, manage all cash flows on both the income statement and the balance sheet, and understand how to compare cash flows from different time periods of risk-adjusted basis. It is nearly impossible to make good decisions without complete information.

Information in here can be obtained through the deeper analyses of the changes in inventory. The increase of inventory may convey good or bad news to a firm. In here, stock price serves as a tool for investigating the incremental value of increase in inventory over earnings for manufacturing firms.

Increase in inventory may convey good or bad news to the market for different reasons. It may convey good news under the production smoothing model (Blinder, 1986; Bernard and Noel, 1991). A firm can be described as a production smoothing firm if it variance of production is smaller than its variance of sales (Blinder, 1986). If its future demand is expected to be decreased, then it sells as much as possible its inventory now, i.e., inventory for the year is

decreased. Inventory levels, therefore, are positively associated with future sales. If a firm's future demand is expected to be decreased, then its future earnings are also expected to be decreased. Inventory level, therefore, is also positively associated with future earnings (Bernard and Noel, 1991). Empirical results from the economic literature, however, show that the variance of production is higher than the variance of sales for manufacturing, whole sale trade, and retail trade industries, i.e., production smoothing model is not adequate with descriptive model (Blinder and Maccini, 1991).

Increase in inventory may also convey good news when managers anticipate an increase in future sales (Jiambalvo, Noreen and Shelvin, 1997). Jiambalvo, Noreen and Shelvin (1997) investigate the incremental value of increase in inventory over earnings for manufacturing firms from 1975 to 1992 using cumulative abnormal returns approach. The results of the pooled regression show that both unexpected earnings and increase in inventory are positively and significantly associated with cumulative abnormal earnings. The results annual regressions show that unexpected earnings are positively and significantly associated with CAR for all 18 years while CPAI (Change in Percentage of Production Added to Inventory) is positively and significantly associated with CAR in 11 of the 18 years. Thus, results in Jiambalvo, Noreen and Shelvin (1997) are consistent with the good news scenario.

Increase in inventory may convey bad news under the stockout model (Bernard and Noel, 1991). A firm can be described as a stockout firm if its variance of production is higher than its variance of sales (Blinder, 1986). A

decrease in inventory indicates a high frequency of stockouts, and a high level of demand. Thus, inventory levels are negatively associated with future sales, and therefore, future earnings (Bernard and Noel, 1991).

Increase in inventory may also convey bad news when the firm doing the things stated as follows:

1. Adds production to inventory in anticipation of a strike (Jiambalvo, Noreen and Shelvin, 1997)
2. Faces an unexpected sales decrease (Lev and Thiagarajan, 1993; Jiambalvo, Noreen and Shelvin, 1997).
3. Loses production or inventory control (Lev and Thiagarajan, 1993)
4. Has a growth of obsolete inventory items (Lev and Thiagarajan, 1993).
5. Tries to manipulate absorption-costing net income by increasing production volume (Lev and Thiagarajan, 1993; Jiambalvo, Noreen and Shelvin, 1997).

Strictly speaking, an informative inventory planning process should be described as a process that matches percentage of production added to inventory with one year ahead percentage change in cost of goods sold, instead of sales (Lev and Thiagarajan, 1993). A good inventory planning firm, therefore, can be described as a firm that has a positive and significant association between its percentage change in cost of goods sold and its lag one percentage of production added to inventory. Its change in inventory is informative and can sustain future sales and cost of goods sold, and the quality of its earnings is higher. The association between its stock price and its earnings, therefore, is also higher.

2.3. Fundamental Information Analysis

Fundamental analysis refers to the process of using basic accounting measures or "fundamentals" like accounting earnings, cash flows, or book values to estimate a company's worth. Fundamental is aimed at determining the value of corporate securities by a careful examination of key value-drivers, such as earnings, risk, growth, and competitive position. In fact, to identify a set of fundamentals that will be used to evaluate firm's performance, firstly we have to put a mind set on the effect of the association between stock price and earnings on firm valuation.

Analysts generally attach a unique interpretation to a fundamental signal. In this research, we are studying on how the changes in inventory can bring useful information for firm valuation or convey bad news to the market. The fundamental value driver that is used in this study is the increase in inventory. Under this fundamental value driver here, increase in inventory may convey good or bad news to the market for different reasons. According to Blinder (1986) and Bernard and Noel (1991), it may convey good news under the production smoothing model. Whereas an increase in inventory may convey bad news under stockout model.

The interpretation that were built here is that a firm can be described as a production smoothing firm if its variance of production is smaller than its variance of sales (Blinder, 1986). If its future demand is expected to be decreased, then it sells as much as possible its inventory now, i.e., inventory for the year is decreased. Inventory levels, therefore, are positively associated with future sales.

If a firm's future demand is expected to be decreased, then its future earnings are also expected to be decreased. Inventory level, therefore, is also positively associated with future earnings (Bernard and Noel, 1991). Therefore, a disproportionate (to sales) inventory increase might sometimes provide a positive signal about manager's expectation of sales increases. Moreover, a decrease in inventory provide a negative signal, indicates a high frequency of stockouts, and a high level of demand. Nevertheless, initially, in the noncontextual part of this study, we follow a parsimonious approach (Ender, 1995) of examining the extent to which a single interpretation of a fundamental (i.e., the one used by analysts) is valid for a large-cross section of firms.

2.4. Inventories

One of the 12 signals for fundamental analysis that is examined here is inventory. Inventory increases that outrun cost of sales increases are frequently considered a negative signal because such increases suggest difficulties in generating sales. Furthermore, such inventory increases suggest that earnings are expected to decline as management attempts to lower the inventory levels (e.g., car manufacturers' periodic price concessions).

Disproportionate inventory increases may also suggest the existence of slow-moving or obsolete items that will be written off in the future. Another point, not mentioned by analysts, is that inventory buildups increase current earnings at the expense of future earnings by absorbing overhead costs. Inventory decreases, through infrequently noted by analysts, generally suggest higher than

expected sales and a decrease in overhead cost absorption, boding well for current and future earnings.

Because there are many inventory-holding motives, such as smoothing production in the face of fluctuating sales, minimizing stock-out costs, and speculating or hedging against future price movements, an inventory increase might sometimes convey a positive rather than a negative signal. Nevertheless, viewing a disproportionate inventory increase as a negative signal is consistent with the major inventory-holding motive—production smoothing. Such as been stated by Blinder and Maccini (1991, p.781) that economists have singled out the production-smoothing/buffer-stock motive for attention.

When production varies less than sales, a disproportionate inventory increase may result from an unexpected sales decrease, loss of production or inventory control, or growth of obsolete inventory items—all reflecting negatively on future earnings. Since these arguments apply particularly to the "finished goods" component of inventory, our empirical tests are based on this component when it is available on compustat and on "total inventories" otherwise.

The formula for each sample firm and year the following inventory signal:

Percentage Change in Inventory – Percentage Change in Sales

The annual percentage change in inventory (and correspondingly for sales) is defined as:

$$[\ \text{Inventory}_t - E(\text{Inventory}_t)] \ / \ E(\text{Inventory}_t),$$

where $E(.)$ denotes expected value. Since the writer of this thesis is regressing unexpected returns on the fundamental signals, the signals should reflect the

unexpected component of the fundamental variable. The writer used two expectation models: a random walk and a two-year averaging model (E(Inventory$_t$) = 1/2 (Inventory$_{t-1}$ + Inventory$_{t-2}$)). The empirical test indicated that the two expectation models yield very similar results; the findings reported below are those based on the two-year average model for all the fundamental signals. Since a positive value of the inventory signal is a priori perceived as "bad news", the signal is expected to be negatively correlated with stock returns.

2.5. Sales and Earnings and the Connectivity with Inventory

For manufacturers, especially those whose production is less variable relative to sales, unexpected changes in raw materials and work-in-process inventory (after controlling for current sales) are positive leading indicators of future sales, consistent with a "lead time" or "production smoothing" model of inventory. However, such changes are essentially neutral as far as earnings are concerned. In contrast, unexpected changes in manufacturers' finished goods inventory have little or no relation with future sales, and are negative leading indicators of future earnings, even after controlling for the impact of current sales on inventory levels; this is consistent with a "stockout model" of inventory.

2.6. The effect on Stock Prices regarding information in accruals and cash flows about the future earnings.

The nature of the information contained in the accrual and cash flow components of earnings and the extent to which this information is reflected in

stock prices. Meanwhile, the stock price itself, based on what is described in a nutshell, are formed by a company's ability to generate cash flows in present and in the future. It can be laid on based on three basic facts, those are:

1. Any financial asset, including a company's stock, is valuable only to the extent that it generates cash flows.
2. The timing of cash flows matters—cash received sooner is better, because it can be reinvested in the company to produce additional income or else be returned to investors.
3. Investors, generally, are averse to risk, so all else equal, they will pay more for a stock whose cash flows are relatively certain than for one whose cash flows are more risky.

Because of these three facts, managers can enhance their firm's stock prices by increasing the size of the expected cash flows, by speeding up their receipt, and by reducing their risk. In here, the effect of stock prices can bring good or bad news to a firm. Stocks commonly are purchased because shareholders want to earn a good return on their investment without undue risk exposure. In addition, in a firm, the primary goal is stockholder wealth maximization by maximizing the price of the firm's common stock. Beside of explanation above, there are three primary determinants of cash flows, those are:

1. Unit sales.
2. After-tax operating margins.
3. Capital requirements.

The first factor has two parts, the current level of sales and their expected future growth rate. Managers can increase sales; hence, cash flows, by truly understanding their customers and then providing the goods and services that customers want. Some companies may find it fortunate to come into a situation that creates rapid sales growth, but the unfortunate reality is that market saturation and competition will, in the long-term, cause their sales growth rate to decline to a level that is limited by population growth and inflation. Therefore, managers must constantly strive to create new products, services, and brand identifies that cannot be easily replicated by competitors, and thus to extend the period of high growth for as long as possible.

The second determinant of cash flows is the amount of after-tax profit that the company can keep after it has paid its employees and suppliers. One possible way to increase operating profit is to charge higher prices. However, in a competitive economy such as ours, higher prices can be charged only for products that meet the needs of customers better than competitors' products. Another way to increase operating profit is to reduce direct expenses, such as labor and materials. However, and paradoxically, sometimes companies can create even higher profit by spending more on labor and materials.

The third factor affecting cash flows is the amount of money a company must invest in plant and equipment. In short, it takes cash to create cash. For example, as a part of their normal operations, most companies must invest in inventory, machines, buildings, and so forth. However, each dollar tied up in operating assets is a dollar that the company must "rent" from investors and pay

for by paying interest or dividends. Therefore, reducing asset requirements tends to increase cash flows, which increases the stock price. For example, companies that successfully implement just-in-time inventory systems generally increase their cash flows, because they have less cash tied up in inventory. Each of investment and financing decisions that are taken by a manager is likely to affect the level, timing, and risk of the firm's cash flows, and, therefore, the price of its stock. Naturally, managers should make investment and financing decisions that are designed to maximize the firm's stock price.

Although managerial actions affect stock prices, stocks are also influenced by such external factors as legal constraints, the general level of economic activity, tax laws, interest rates, and conditions in the stock market. Working within the set of external constraints, management makes a set of long-run strategic policy decisions that chart a future course for the firm. These policy decisions, along with the general level of economic activity and the level of corporate income taxes, influence expected cash flows, their timing, and their perceived risk. These factors all affect the price of the stock, but so do another factor, the stock market's overall condition.

After a brief explanation about the things that forming and will be affecting stock price, it has been investigated that the results indicate that earnings performance attributable to the accrual component of earnings exhibits lower persistence than earnings performance attributable to the cash flow component of earnings. The results also indicate that stock prices act as if investors "fixate" on earnings, failing to distinguish fully between the different properties of the accrual

and cash flow components of earnings. Consequently, firms with relatively high (low) levels of accruals experience negative (positive) future abnormal stock returns that are concentrated around future earnings announcements.

Instead of relying on a statistically motivated model to predict future earnings, it is using model that relies on the characteristics of the underlying accounting process that are documented in texts on financial statement analysis. While Ou and Penmann (1989) and Bernard and Thomas (1990) use a random walk model to represent investors' naive earnings expectations, then it would be using a less restrictive model that assumes investors might not fully discriminate between different component of earnings.

Bernard and Stober (1989) find no evidence that stock prices respond in a systematic manner to the release of information about the cash flow and accrual components of earnings and conjecture that the information content of these two components of earnings may not be systematically different. However, the results demonstrate that the information content of these components is systematically different, but that stock prices do not reflect this information fully until it gives an impact on future earnings.

Information in prices is assumed useful in forecasting more-than-one-period-ahead earnings changes in examining its effect on the estimated slope coefficient and explanatory power of alternative specifications of the price-earnings relation.

Because prices reflect information about future earnings changes, therefore:

1. Compared to the change specification, the levels specification yields higher explanatory power and a less biased earnings response coefficient estimate, where the 'true' coefficient is the slope coefficient from a time-series regression of unexpected return on scaled unexpected earnings.
2. The levels specification yields a biased earnings response coefficient when prices contain information about more-than-one-period-ahead earnings changes.
3. If an accurate proxy for the market's unexpected earnings is used, the earnings response coefficient estimate is unbiased and the explanatory power is greater than that using the levels and change specifications.
4. Beginning-of-the-year price as a deflator, compared to the previous year's earnings, yields a less biased earnings response coefficient estimate and higher explanatory power.

The explanatory power of the typically estimated price-earnings regression is expected to be low, perhaps only about 15-20 percents.

If most of a stock's value is due to long-term cash flows, managers and analysts pay much attention to quarterly earnings, because it all lies in the information conveyed by short-term earnings. For example, if actual quarterly earnings are lower than expected, it is not because of fundamental problems but only because a company has increased its R&D expenditure, studies have shown that the stock price probably will not decline and may actually increase. This is logical, because R&D should increase future cash flows. On the other hand, if quarterly earnings are lower than expected because customers do not like the

company's new products, then this new information will have negative implication for future values of g, the long-term growth rate. Even small changes in g can lead to large changes in stock prices. Therefore, while the quarterly earnings themselves might not be very important, the information they convey about future prospects can be terribly important. Another reason why a number of managers focus on short-term earnings is that some firms pay managerial bonuses on the basis of current earnings rather than stock prices (which reflect future earnings). For these managers, the concern with quarterly earning is not due to their effect on stock prices—it is due to their effect on bonuses.

2.7. Previous Studies

The previous studies that serve as the base of this research are:

1. Bernard and Noel (1991)

   Bernard and Noel (1991) have investigated the predictive ability of inventory level on sales and earnings. Whether there is any significant relationship between future sales, future earnings and with stock price.

   Their results indicate that increase in finished goods inventory is not related to future sales, but it is negatively associated with future earnings. Given the overwhelming empirical evidence on the positive association between earnings and stock price, increase in inventory most likely is also negatively associated with stock price.

2. Lev and Thiagarajan (1993)

Lev and Thiagarajan (1993) had been made any investigation then had been generated 12 signals for fundamental analysis. One of the signals is increase in inventory, which is measured by percentage change in inventory value minus percentage change in sales (referred to by Jiambalvo, Noreen and Shelvin (1997) as PCIS).

Their result shows that increase in inventory is negatively associated with 12 months excess stock returns, i.e., a result that is consistent with that implied in Bernard and Noel (1991).

3. Jiambalvo, Noreen and Shelvin (1997)

Jiambalvo, Noreen and Shelvin (1997) have also studied the association between cumulative abnormal returns (CAR) over a 12 months window with the increase in inventory, measured by the change in percentage of production added to inventory (CPAI).

Their result shows that CPAI is positively associated with CAR, i.e., a result seems to be inconsistent with that in Lev and Thiagarajan (1993). Jiambalvo, Noreen, and Shelvin (1997), however, are unable to explain the inconsistency. They conclude that the measures for increase in inventory in the two studies (PCIS and CPAI) are different; PCIS is negatively associated with CAR while CPAI is positively associated with CAR, but the product moment correlation between PCIS and CPAI is positive and significant. Thus, increase in inventory is a significant

fundamental signal regardless of the different measures and the seemingly inconsistent empirical results.

While in Indonesia, the similar study is not yet conducted by Indonesian researcher. Nevertheless, there are many overseas researchers using sample firm in Indonesia.

2.8. Theoretical Approach

Besides using valuation approach to examine the association between firm value and earnings, this research is also using the cumulative abnormal returns approach that had been done by Lev and Thiagarajan (1993) and Jiambalvo, Noreen, and Shelvin (1997), in which they measured the incremental value of increase in inventory over earning for manufacturing firms from 1975 to 1992. Increase in inventory is defined as the change in percentage of production added to inventory (CPAI). In order to reconcile the results in Jiambalvo, Noreen and Shelvin (1997) and Lev and Thiagarajan (1993) as well as to define the informativeness of change in inventory, the focus has to be placed on two aspects of earnings quality: cash component of earnings (Comiskey, Mulford and Choi, 1994/1995; Sloan, 1996; Ozanian and Fluke, 2001) and persistence/sustainability of earnings (Comiskey, Mulford and Choi, 1994/1995; Revsine, Collins and Johnson, 1999).

Cash component generally is defined as cash from operating activities (e.g., Collins and Hribar, 1999). An increase in inventory does not hurt earnings but does hurt cash flow from operations (Ozanian and Fluke, 2001) and, therefore,

quality of earnings. Results of Lev and Thiagarajan (1993) support the cash component argument while results of Jiambalvo, Noreen, and Shelvin (1997) do not support the cash component. Thus, the cash component argument alone does not explain the impact of change in inventory; the persistence/sustainability of earnings has to be considered.

The effect of inventory change on persistence/sustainability of earnings can be formulated by the association between change in inventory in this year and change in sales in the next year, i.e., inventory planning. Low association may imply a disproportionate inventory increase (Lev and Thiagarajan, 1993) resulting from, from example, unexpected sales decrease or loss of production control. Low association may also imply a disproportionate inventory decrease resulting from, for example, high degree of demand or high frequency of stockouts. Thus, all the events associated with low association reflect negatively on earnings. High association implies that change in inventory is proportionate, can sustain future sales and cost of goods, and results in higher quality of earnings, which are derived from subtracting cost of goods sold and other expenses from sales.

Production smoothing is not a good inventory planning in that it does not match current inventory level with future sales. Neither are increases in inventory due to a sales slowdown, a loss of inventory control, a growth of obsolete inventory, or manipulation of absorption-costing net income. Thus, an informative inventory planning process can be described as a process that matches change in inventory with change in future sales.

2.8.1 Cumulative Abnormal Return

The abnormal return for a day is the actual return for that day minus the return predicted for that day. Once the size of the abnormal return has been estimated for each day in the event window, the daily abnormal returns can be summed to find the cumulative abnormal return, or CAR, which is a measure of the impact of the event on the security's return. Hypothesis testing is used to test the statistical significance of the CAR to determine the probability that a CAR of that particular size had occurred due to random chance rather than in response to the incorporation of new information.

Once the event window has been selected and it has been determined whether the event in the event window has been partially anticipated, the actual calculation of the CAR is straightforward. The essence of the analysis is to find a "benchmark" level of performance of a comparable security during the event period and then subtract that level of performance from the security's actual performance during the event window. The benchmark is constructed to mimic the rate of return that the subject security would have had during the event window *if the event under analysis had not occurred*. Historically this benchmark has been constructed by calculating the average rate of return that is observed for stocks in general that day, and then adjusting that average return for the risk of the subject security. Recent evidence has cast doubt on some of the risk adjustment methods and, independently, models using unadjusted returns seem to perform as well as adjusted-return models. However, the benchmark is calculated, subtracting the benchmark level of performance from the stocks actual performance for a

particular day in the event window gives the abnormal return (AR) on the stock for that day. If the stock's AR for a day is positive, it becomes an evidence that the stock is reacting to the release of some positive news, while a negative AR is an evidence that the stock is reacting to some negative news. Often economists believe that it takes more than one day for new information to be fully reflected in a stock's price, so it is typical to add together the stock's ARs for two or three trading days. This summation is called as the "cumulative abnormal return" or "CAR" and the CAR is the subject of the hypothesis tests discussed *infra*.

If the estimated CAR is near zero, this is an evidence that the event hypothesized to have affected the value of the security did not actually affect the value of the security. On the other hand, if the CAR differs substantially from zero, which is evidence that the event did affect the value of the security. Indeed, the investigation of whether the CAR is about zero or whether it differs substantially from zero is the financial economics analog of the epidemiology inquiry that the Court required in *Daubert*. Such an inquiry is conducted by specifying a hypothesis, called the null hypothesis, that CAR is equal to zero, and then testing CAR to see if the scientist can reject (or falsify, to use the word that so concerned the Chief Justice in *Daubert*) that hypothesis. If the scientist can reject the null hypothesis, we can say that CAR differs from zero in a statistically significant manner and the event had an effect on the value of the security. If we fail to reject the null hypothesis, we are unable to determine that the event affected the value of the security.

2.9. Hypotheses Formulation

In 1st alternative hypothesis, it is formed in line with what had been stated on previous studies; Bernard and Noel (1991) have investigated the predictive ability of inventory level on sales and earnings. Bernard and Noel (1991) have investigated the predictive ability of inventory level on sales and earnings. Whether there is any significant relationship between future sales, future earnings and with stock price. Their results indicate that increase in finished goods inventory does not have any relation to future sales, but it is negatively associated with future earnings. Given the overwhelming empirical evidence on the positive association between earnings and stock price, increase in inventory most likely is also negatively associated with stock price. Considering the explanation above, it leads to form the alternatives hypothesis as below:

H1 : Earnings is positively associated with stock price

In 2nd alternative hypothesis, it is formed in line with what had been stated on previous studies, that Lev and Thiagarajan (1993) had made a research that had generated the 12 signals for fundamental analysis. One of the signals is the increase in inventory, which is measured by percentage change in inventory value minus percentage change in sales (referred to by Jiambalvo, Noreen and Shelvin (1997) as PCIS). Their result shows that the increase in inventory is negatively associated with 12 months excess stock returns, i.e., a result that is consistent with that implied in Bernard and Noel (1991). Considering the explanation above, it leads to form the 2nd alternatives hypothesis as follows:

H2 : There is negative association between increase in inventory and stock price.

Besides of what have been stated by Jiambalvo, Noreen and Shelvin (1997) on previous studies, they also investigate the incremental value of increase in inventory over earnings for manufacturing firms from 1975 to 1992 using the cumulative abnormal returns approach. The results of the pooled regression show that both unexpected earnings and increase in inventory are positively and significantly associated with cumulative abnormal earnings. The results of annual regression show that unexpected earnings are positively and significantly associated with CAR for all 18 years while CPAI is positively and significantly associated with CAR in 11 of 18 years. Considering the explanation above, it leads to form the 3rd alternatives hypothesis as follows:

H3 : There is positive association on earnings between increase in inventory and stock price.

CHAPTER III

RESEARCH METHOD

3.1. Type of Research Method

This thesis used the quantitative analysis method. The quantitative analysis is a characteristic of variables when the value is stated on the numerical form. The characteristic of the measurement variable makes the value being placed in interval.

Furthermore, this study is also using a research methodology that is fundamentally different from those in the prior studies in two respects, those are as follows:

1. It classifies firms into two groups which Group I consists of firms with positive and significant association between percentage changes in cost of goods sold and lag one percentage of production added to inventory while Group 0 consists of other firms. Whereas Lev and Thiagarajan (1993) and Jiambalvo, Noreen, and Shelvin (1997) did not. To classify the sample firms in this research, the researcher was using 7 (seven) years , from year the 1998 to 2004 , and then two years are found with its dummies to conduct this research that is from 2003 and 2004.
2. It uses the firm valuation analysis that consists of two approaches, those are the level approach and the changes approach. Those two approaches are used to examine the association between firm value and earnings while Lev and Thiagarajan (1993) and Jiambalvo, Noreen, and Shelvin

(1997) use the cumulative abnormal returns approach to study the incremental value of increase in inventory over earnings.

3.2. Population and Sample

The population from which the sample was taken for this study referred to all companies that were listed in JSX from the period January 1998 to December 2004. The samples for the study were those companies that meet following criteria:

1. Companies that developing as manufacturing firm.
2. Companies which annual total inventory data from 1998 to 2004 available in the Research Insight database.
3. Companies which annual cost of goods sold data from 1998 to 2004 available in the Research Insight database.
4. Companies which close price per share, basic earnings per share excluding extraordinary items, and book value per share data from 2002 to 2004 available in the Research Insight database.
5. Companies which common equity and shares used to calculate basic earnings per share data from 2002 to 2004 available in the Research Insight database.
6. Companies with inventory methods data from 2003 to 2004; gross profit, selling and administrative expenses data from 2002 to 2004; then 152 firms are selected from the database.

3.3. Data Collection

Data collection was conducted by compiling the secondary data that were available and quoted properly from the data sources in the library of Faculty of Economics UII Yogyakarta, MM UGM Library Yogyakarta, and Jakarta Stock Exchange Corner. The data collection and the sources of data are described below:

1. The data samples are manufacturing firms.
2. Their annual total inventory data from 1998 to 2004 are available in the Research Insight database.
3. Their annual costs of goods sold data from 1998 to 2004 are available in the Research Insight database.
4. Their close price per share, basic earnings per share excluding extraordinary items, and book value per share data from 2002 to 2004 are available in the Research Insight database.
5. Their common equity and shares used to calculate basic earnings per share data from 2002 to 2004 are available in the Research Insight database.
6. 152 firms are selected from the database. In addition to the above data, their inventory methods data from 2003 to 2004, gross profit and selling and administrative expenses data from 2002 to 2004 are also collected.

3.4. Research Variables

There are two variables in this research. Those are dependent variable and independent variable.

1) Independent Variable

Independent Variable is a variable that is not depending on other variables. It is usually called as free variable. The independent variables in this research are: unexpected earnings and CPAI (Change in Percentage of Production Added to Inventory)

2) Dependent Variable

Dependent variable is a variable that depends on other variables. Dependent variable in this research is CAR (Cumulative Abnormal Returns) over 12 months. CAR is acquired at closing stock price in the research period.

- There are two models that can be used in calculating the increase in inventory under cumulative abnormal return, in purpose to know whether increase in inventory may convey good or bad news to the market, then they are:

a. Model : $CPAI_t = ((QP_t - QS_t) / QP_t) - (QP_{t-1} - QS_{t-1}) / QP_{t-1}))$ (3.1)

Where:

QP_t = is quantity produced in year *t*

QS_t = is quantity sold in year *t*.

The statistical model was used to show whether the association between unexpected earnings and increase in inventory are positively and significantly associated with cumulative abnormal earnings under pooled regression and to show whether unexpected earnings are positively and significantly associated with CAR under annual regression.

b. Model : $PAI_t = (QP_t - QS_t) / QP_t = \Delta INV_{abs,t} / (COG_{abs,t} + \Delta INV_{abs,t})$ (3.2)

Where:

$\Delta INV_{abs,t}$ = is change in inventory value under absorption costing in year *t*

$COG_{abs,t}$ = is cost of goods sold under absorption-costing in year *t*.

The equation above can be used to measure the change in inventory by the percentage of production added to inventory (PAI), which the concept is defined by and derived from Jiambalvo, Noreen and Shelvin (1997).

3.5. Technique of Data Analysis

The data analysis used in this research is Linear Multiple Regression Analysis. Linear Multiple Regression Analysis is used to test the hypothesis. In this research, researcher used a Linear Multiple Regression in level model in order to know the relationship between CAR variable, unexpected earnings, and CPAI

(Change in Percentage of Production Added to Inventory). The steps of analysis are divided into some groups of framework based on the hypothesis followed by forming the regression model and formulate the hypothesis testing. The steps analyses of the hypotheses are explained as follows:

a) The identification of the event date.
b) Determining the event window, which were the five days before and five days after the listing date of the stock price.
c) Obtaining the data of firms that meets the criteria written in 3.3
d) Making statistical comparisons on the increase in inventory, to find out if there were significant differences between those two firms and periods.
e) Making statistical comparisons on annual total inventory data from 1998 to 2004
f) Making statistical comparisons on annual cost of goods sold data from 1998 to 2004.
g) Making grouping/classification firms from 2003 to 2004.
h) Making computation of dummies for several variables that are needed to support the hypotheses tests.
i) Making statistical comparisons on close price per share, basic earnings per share excluding extraordinary items, and book value per share data from 2002 to 2004.
j) Making statistical comparisons on common equity and shares used to calculate basic earnings per share data from 2002 to 2004.

k) Making statistical comparisons inventory methods data from 2003 to 2004, gross profit, selling and administrative expenses data from 2002 to 2004.

To examine the hypothesis, the following models were used:

a. A paired different test with the t-test parameter. This model was used to test some hypotheses about the variation between two population means for unexpected earnings and CPAI (Change in Percentage of Production Added to Inventory) variables.

b. Multiple regression analysis. This method was used to examine hypotheses (the relationship between earnings level and price level with increase in inventory, effect of the informativeness of change in inventory on firm valuation). Regressions were performed for each of the two sample groups by pooling data from 2003 to 2004.

The regression model:

1. $\%\Delta\ COG_{t+1} = (COG_{t+1} - COG_t) / COG_t = \alpha_1 + \beta_1\ PAI_t + \varepsilon_t$ (3.3)

   This regression model was used to classify the firms.

   Where:

   $\%\Delta\ COG_{t+1}$ = is percentage change in cost of goods sold for year t + 1

   PAI_t = is percentage of production added to inventory for year t defined by Equation (3.2).

2. Levels analysis. The levels approach can be represented by the following equation:

$$P_t = \alpha_2 + \beta_2\ E_t + \varepsilon_t \qquad (3.4)$$

Where:

P_t = close price per share for year t

E_t = basic earnings per share excluding extraordinary items for year t.

Both the dependent and independent variables are normalized by beginning common equity per share. B_2 is expected to be positive and significant, i.e., earnings level is positively and significantly associated with stock price level.

3. Changes analysis. The changes approach can be represented by the following equation:

$$(P_t - P_{t-1}) = \alpha_3 + \beta_3 (E_t - E_{t-1}) + \varepsilon_t \quad (3.5)$$

Both the dependent and independent variables are normalized by beginning common equity per share. β_3 is expected to be positive and significant, i.e., earnings change is positively and significantly associated with stock price change.

4. Combined and pooled regressions. Barth, Elliot and Finn (1999) suggested the usage of an indicator variable to combine both sample groups into one regression. For the level approach, then the equation is:

$$P_t = \alpha_4 + \beta_4 E_t + \beta_5 (D \times E_t) + \varepsilon_t \quad (3.6)$$

Where:

D is an indicator variable; it equals one for Group 1, and zero for Group 0.

Both the dependent and the independent variables are normalized by beginning common equity per share. The rationale for using the indicator variable is explained in Neter, Wasserman and Kuther (1985) as follows: For Group 1 firms (D = 1),

$$E[P_t] = \alpha_4 + (\beta_4 + \beta_5) E[E_t] \quad (3.7)$$

Where: E = is the expectations operator.

For Group 0 firms (D = 0),

$$E[P_t] = \alpha_4 + \beta_4 E[E_t] \quad (3.8)$$

5. The difference between the two groups, therefore, is represented by β_5. If Group 1 firms do have a higher price-earnings multiple, then β_5 should be positive and statistically significant. For the changes approach, the regression equation is as follows:

$$(P_t - P_{t-1}) = \alpha_5 + \beta_6 (E_t - E_{t-1}) + \beta_7 (D \times (E_t - E_{t-1})) + \varepsilon_t \quad (3.9)$$

Both the dependent variable and the independent variables are normalized by beginning common equity per share. β_7 should be positive and statistically significant if Group 1 firms have a higher price-earnings multiple than Group 0 firms.

6. Following are the levels and the changes regressions by incorporating the control variable:

$$P_t = \alpha_6 + \beta_8 E_t + \beta_9 InvM1 + \varepsilon_t \quad (3.10)$$

$$(P_t - P_{t-1}) = \alpha_7 + \beta_{10}(E_t - E_{t-1}) + \beta_{11} InvM1 + \varepsilon_t \quad (3.11)$$

Where:

InvM1 equals 1 if inventory method is FIFO and 0 otherwise

7. Price, price change, earnings, and earnings change are normalized by beginning common equity per share. An indicator variable can also be included in the levels and the changes regressions:

$$P_t = \alpha_8 + \beta_{12} E_t + \beta_{13} InvM1 + \beta_{14}(D \times E_t) + \varepsilon_t \quad (3.12)$$

$$(P_t - P_{t-1}) = \alpha_9 + \beta_{15}(E_t - E_{t-1}) + \beta_{16} InvM1 + \beta_{17}(D \times (E_t - E_{t-1})) + \varepsilon_t \quad (3.13)$$

8. Analysis by decomposing earnings. Earnings per share before extraordinary items are decomposed as the following in this study:

$$E = GP - SA - Other \quad (3.14)$$

Where:

E = earnings per share before extraordinary

GP = gross profit per share

SA = selling and administrative expense per share

Other = other expense per share

(i.e., Other = GP – SA – E).

9. Level analyses are performed for each group, and for the combined sample is using indicator variables:

$$P_t = \alpha_{10} + \beta_{18} GP_t + \beta_{19} SA_t + \varepsilon_t \quad (3.15)$$

$$P_t = \alpha_{11} + \beta_{20} GP_t + \beta_{21} SA_t + \beta_{22}(D \times GP_t)$$

$$+ \beta_{23} (D \times SA_t) + \varepsilon_t \quad (3.16)$$

The dependent and the independent variables are normalized by beginning common equity per share.

10. Changes analyses are also performed for each group, and for the combined sample using indicator variables:

$$(P_t - P_{t-1}) = \alpha_{12} + \beta_{24} (GP_t - GP_{t-1}) + \beta_{25} (SA_t - SA_{t-1}) + \varepsilon_t \quad (3.17)$$

$$(P_t - P_{t-1}) = \alpha_{13} + \beta_{26} (GP_t - GP_{t-1}) + \beta_{27} (SA_t - SA_{t-1}) + \beta_{28} (D \times (GP_t - GP_{t-1})) + \beta_{29} (D \times (SA_t - SA_{t-1})) + \varepsilon_t \quad (3.18)$$

Both the dependent and the independent variables are normalized by beginning common equity per share.

3.5.1. The period of Observation

The time of observation for this research was five days before and five days after the listing date of the stock price. Those times were applied for all samples during January 2003 to December 2004. The eleven days of research observation was sufficient to see the changes of inventory resulting from the change in inventory activity.

3.6. Formulated Hypothesis and Hypothesis Testing.

Based on the problem statements and the review of the related literature, the alternatives hypotheses and the null hypotheses that are proposed in this research are as follows:

$H_{o1} : \beta_i \leq 0$

An earnings is not positively associated with stock price.

$H_{A1} : \beta_i > 0$

An earnings is positively associated with stock price.

$H_{o2} : \beta_i \geq 0$

There is no negative association between increase in inventory and stock price.

$H_{A2} : \beta_i < 0$

There is negative association between increase in inventory and stock price.

$H_{o3} : \beta_i \leq 0$

There is no positive association on earnings between increase in inventory and stock price.

$H_{A3} : \beta_i > 0$

There is positive association on earnings between increase in inventory and stock price.

The hypothesis testing will be done by using the Linear Multiple Regression in order to find the relationship between the dependent and independent variables that are used in this research. This research used the significant level of 95% or $\alpha = 5\%$. The data, then, were processed by using SPSS 12.0 (Statistical Package for Social Science) computer software and E-views to do such classical assumption test in multiple regressions and to overcome them. After

finding the regression results, which all the hypothesis testing was done by using all the regression equation models, the researcher analyzed the significance of coefficient and variable.

To test the hypotheses, researcher used model developed by:

a) To test the 1st hypothesis, the research was using 2nd, 3rd, 4th and 5th model of Linear Multiple Regression equation.

   The 2nd model was used to find the association of earnings with stock price for year *t*. Meanwhile, the 3rd model here was used to test the association of changes of earnings for year t to year *t-1* with stock price for year *t* to year *t-1*. Thus, the 4th model here was used to combine both sample groups into one regression, namely by pooled regression. Then the 5th model was used to test which group sample that has informativeness of change in inventory that would be useful for firm valuation.

b) To test the 2nd null hypothesis, the research was using 6th model of Linear Multiple Regression equation.

   In the 6th model here, the researcher wanted to see the association of changes in inventory and stock price, both in year *t* and the changes between year *t* and

   t-1.

c) To test the 3rd hypothesis, the research used 7h, 9th and 10th model of Linear Multiple Regression equation.

In this case, 7th model was used to test 3rd null hypothesis, because the researcher wants to know whether there is no positive association on earnings between increase in inventory and stock price, both in year *t* and the changes between year *t* to year *t-1*. In the 9th and 10th models of regression here are used to test the connection between earnings and stock price whether earnings has side effect on stock price, including to have a deeper analysis on them.

3.7. Testing and Detecting the Classical Assumption on Multiple Regression

a. The outliers test.

The outliers test is an unusual observation in the data set. It happens when your data is included as extreme data. The impacts of the existence of outliers are as follows: β_i is changed, T-test will change, F-test will change, and R^2 adj will change too. Two useful methods for detecting outliers are box plots and Z-scores. The Cook's Distance of 2.5 ranges is also used to detect the outliers. In addition, the treatment of it is by deleting the data or excluding the extreme data.

b. The multicollinearity test.

The multicollinearity test means there is a correlation among the independent variables. The impacts of the existence of multicollinearity are as the following: β_i is changed, T-test will change, F-test will change, and R^2 adj will change too. The existence of multicollinearity can be seen

in the Calculation results of the Tolerance (TOL) and Variation Inflation Factor (VIF). Gujarati (1995) stated that a variable would have high collinearity if its VIF is more than 10 (ten) or its tolerance tend to be close to 0 (zero). In addition, the treatment of it is by:

1) Ignoring it; if there is no evidence of multicollinearity on your data.
2) Dropping a variable(s) and specification bias.

c. The autocorrelation test.

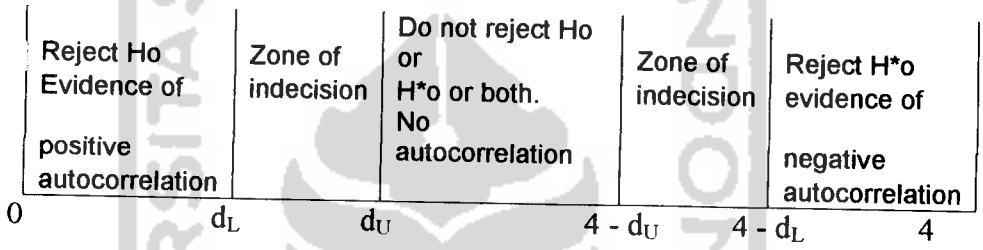
The term autocorrelation may be defined as "correlation between members during a series of observations ordered in time (as in time series data) or space (as in cross-sectional data)" Gujarati (2003: 442). Autocorrelation test is used to detect the serial correlation between disturbance terms. The impacts of the existence of autocorrelation are: β_i is change, T-test will change, F-test will change, and R^2 adj will change too. The most celebrated test for detecting serial correlation is that developed by statisticians Durbin-Watson *d* statistic. As for other test to detect autocorrelation, we can use Lagrance multiplier test (Breusch-Godfrey Statistic), and Q statistic (Box-Pierce and Ljungbox). As long as the data by Durbin-Watson close to 2, then those data do not have any problem nor auto correlation. In addition, the treatment of it is by:

1) Ignoring it when your test is not a time series (pooling or cross-sectional test).

2) Transform all variable. When your test is time series, transform them into another form. You do that until there is no auto correlation anymore.

Test of time series is normally to see the relationship of data from one series to another series.

Durbin Watson d Statistics, Gujarati p. 469



Ho : No positive auto correlation

H*o : No negative auto correlation

Durbin Watson d Test : Decision Rules, Gujarati p. 470

Null Hypothesis	Decision	If
No positive autocorrelation	Reject	0 < d < dL
No positive autocorrelation	No decision	dL < d < dU
No negative autocorrelation	Reject	4 - dL < d < 4
No negative autocorrelation	No decision	4 - dU < d < 4 - dL
No correlation, positive or negative	Do not reject	dU < d < 4 - dU

d. The heteroscedasticity test.

The heteroscedasticity test means there is no difference in the standard value of deviation of dependent variable in each independent variable value. It is occurred when the variance (σ^2) does not equal to 0 ($\sigma^2 \neq 0$). The impacts of the existence of heteroscedasticity are as the following: β_i is changed, T-test will change, F-test will change, and R^2 adj will change too. Heteroscedasticity can be detected by analyzing the coefficient of the Spearman's correlation test. In addition, it can use the scatter diagram and the park test. The treatment of it is by: transforming all the data until there is no heteroscedasticity (into homocedasticity). To detect the existence of heteroscedasticity on your data is by:

1) First, we run $Y = f(x_1, x_2, \ldots, x_k)$ then finds the error (ε) or residual.
2) Calculate the ε^2 (variance).
3) Run regression: $\varepsilon^2 = (x_1, x_2, \ldots, x_k)$. If $\beta_i \neq 0$, then there is heteroscedasticity on your test.
4) Do t-test on $x_1, x_2, \ldots, x_k$, from step 3.

   If there is one coefficient of variable (β_i) then there is heteroscedasticity.

CHAPTER IV

RESEARCH FINDINGS, DISCUSSIONS, AND IMPLICATIONS

4.1 Research Description

4.1.1. Research Population and Sample

"Population is the total collection of elements which is we wish to make some inferences" (Cooper & Pamela, 1998). The meaning of this statement is that the population will determine the overall conclusion which will be made. The population on this research is the companies that are already go public and are listed in the Indonesia Capital Market Directory (ICMD) and in the Jakarta Stock Exchange (JSX) until the end of December 2004.

The population on this research is the companies that are already go public and listed in the Index Capital Market Directory book on JSX corner until the end of December 2004 and there are 153 companies that have been included as manufacturing firms (See Appendix 1). Among these 153 companies, based on the inventory method that I used, I eliminate one company that has standard cost criteria as its inventory method. The company is *PT. Ryane Adibusana Tbk.* It is omitted because in this research the inventory method that I use is only FIFO. There are 152 manufacturing firms after the elimination based on inventory method. Then, after the elimination based on inventory method, among these 152 companies I found that there are 40 companies which do not have a complete data and financial report for the research period (See Appendix 1, table A.1). The 112

selected companies that become the samples of this research can be seen in Appendix 1 in table 4.1.

After we classify the data above, the total population that really fulfills the research criteria is only 112 companies (See Appendix 1). Then, the next task is grouping or classifying firms (See Appendix 3). As mentioned in Chapter 3, the samples are divided into 2 (two) groups. Group 1 consists of firms with positive and significant association between percentage change in cost of goods sold and lag one percentage of production added to inventory, i.e., β_1 is positive and statistically significant at $\alpha = 0.10$ level. Meanwhile Group 0 consists of other firms. From several computations from the data samples that I acquired after doing some observation, 5 years sample observation from 2000 up to 2004 is obtained for the change in cost of goods sold from 1999 to 2004. The same things happen also for computation of lag one percentage of production added to inventory. From several computations from 1998 to 2003, it is obtained 5 years sample observation that is from 1999 up to 2003. This grouping is purposed to determine the dummies for each sample group. Because my research is time series and using pooled data method, therefore after doing grouping, I determined which firm is included in Group 1 or 0 by making correlation between change in cost of goods sold and production added of inventory. Then, from those computations that I have done, it is only provided 2 (two) years from 2003 up to 2004 that will be used in this research, with 112 companies as the sample on this research.

After eliminating the missing data, doing grouping, making computation to get dummies for 2003 and 2004 (See Appendix 4), then we removed several

companies that are considered to be the outliers which did not correlate significantly to the stock price. In this research, based on classifying firms that have been made, I removed companies per each different equation for 2003 up to 2004.

4.1.2. Sources and Data Collection Method

The required data in this research is the stock price, companies' financial statements, and companies' inventory method. The stock price is a price that happens a day after the companies' financial statement is published to the mass media. The stock price that is used for the annual report is the stock price at the end of the fourth months (closing price) after the date of financial statements, with some considerations that the companies' annual financial statements are published to media on average four months later from the date of the financial statements.

The companies' financial statements which are used in this research are the financial statements that are published in annual financial statements. From the year 2002 to 2004, there are 3 periods of financial statements published by the company. In here, closing price year 2002 is used as base year for changes level computation. In relation with this condition, at first the total observation (N) in this research is 304 for 152 companies after eliminating one company which inventory method does not meet the requirement on the test. Then, there are several companies that are eliminated because of missing data; therefore, the total observation (N) in this research is 224 for 112 companies. However, in order to

get better result, we removed some companies that do not have strong correlation with the stock price and they are considered to be the outliers of the data. Thus, the final total observations (N) in this research after removing some companies are different, based on different equation that are presented to support the hypothesis test.

The data that is used in this research are collected from the secondary data, such as financial statements, the company's stock price, the company's inventory method and the company's total shares. The data collection method is through literature search, obtaining data from mass media such as Indonesian Capital Market Directory, and *Info Pasar Modal*. The data for the stock price and the summary of the financial statement from 112 sample companies which have been selected can be seen in Appendix 1.

4.2 Research Findings.

In order to find out how big the influence on informativeness of change in inventory on stock price, the analysis is done by doing several tests of hypotheses. Therefore, in each hypothesis, there will be some testing on several equations that are provided to support the result of the hypothesis test. From the financial statements of 112 sample companies, we then calculated the result by using multiple regression analysis, which is shown in the tables below:

TABLE 4.2

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.4 WITH PROBABILITY $\alpha = 5\%$

VARIABLE	REGRESSION COEFFICIENTS	T - STATISTIC
CONSTANT	1.035	6.180
ET	-1.444	-72.764
R-Squared (R^2) = 0.960 Adjusted R-Squared = 0.960 F-Statistic = 5294.529 Durbin-Watson Statistic = 1.771		

Source: Appendix 5

TABLE 4.3

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.5 WITH PROBABILITY $\alpha = 5\%$

VARIABLE	REGRESSION COEFFICIENTS	T - STATISTIC
CONSTANT	-0.268	-0.975
ETET1	-0.551	-18.931
R-Squared (R^2) = 0.617 Adjusted R-Squared = 0.616 F-Statistic = 358.368 Durbin-Watson Statistic = 1.282		

Source: Appendix 5

TABLE 4.4

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.6 WITH PROBABILITY α = 5%

VARIABLE	REGRESSION COEFFICIENTS	T – STATISTIC
CONSTANT	1.056	6.792
E	-1.452	-78.593
DE	1.710	6.041
R-Squared (R^2) = 0.965 Adjusted R-Squared = 0.965 F-Statistic = 3088.752 Durbin-Watson Statistic = 1.872		

Source: Appendix 5

TABLE 4.5

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.9 WITH PROBABILITY α = 5%

VARIABLE	REGRESSION COEFFICIENTS	T - STATISTIC
CONSTANT	-0.266	-0.966
ETET1	-0.551	-18.871
DETET1	0.123	0.246
R-Squared (R^2) = 0.618 Adjusted R-Squared = 0.614 F-Statistic = 178.455 Durbin-Watson Statistic = 1.280		

Source: Appendix 5

Tables 4.2 up to table 4.5 are performed in order to support the 1st hypothesis test.

TABLE 4.6

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.10 WITH PROBABILITY α = 5%

VARIABLE	REGRESSION COEFFICIENTS	T- STATISTIC
CONSTANT	1.043	6.307
E	-1.444	-73.692
METET1	-1.948	-2.606
R-Squared (R^2) = 0.961 Adjusted R-Squared = 0.961 F-Statistic = 2719.720 Durbin-Watson Statistic = 1.801		

Source: Appendix 5

TABLE 4.7

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.11 WITH PROBABILITY α = 5%

VARIABLE	REGRESSION COEFFICIENTS	T –STATISTIC
CONSTANT	-0.262	-0.955
ETET1	-0.550	-18.920
METET1	-1.510	-1.219
R-Squared (R^2) = 0.620 Adjusted R-Squared = 0.617 F-Statistic = 180.319 Durbin-Watson Statistic = 1.275		

Source: Appendix 5

Tables 4.6 to 4.7 are performed in order to support the 2nd hypothesis test.

TABLE 4.8

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.12 WITH PROBABILITY α = 5%

VARIABLE	REGRESSION COEFICIENTS	T - STATISTIC
CONSTANT	1.067	7.020
E	-1.452	-80.444
DE	1.793	6.458
METET1	-2.341	-3.394
R-Squared (R^2) = 0.967 Adjusted R-Squared = 0.967 F-Statistic = 2161.023 Durbin-Watson Statistic = 1.914		

Source: Appendix 5

TABLE 4.9

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.13 WITH PROBABILITY α = 5%

VARIABLE	REGRESSION COEFFICIENTS	T - STATISTIC
CONSTANT	-0.254	-0.925
ETET1	-0.551	-18.917
METET1	-1.914	-1.424
DETET1	0.421	0.777
R-Squared (R^2) = 0.621 Adjusted R-Squared = 0.616 F-Statistic = 120.199 Durbin-Watson Statistic = 1.270		

Source: Appendix 5

TABLE 4.10

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.15 WITH PROBABILITY $\alpha = 5\%$

VARIABLE	REGRESSION COEFFICIENTS	T - STATISTIC
CONSTANT	0.963	5.531
GP	-2.698	-40.827
SA	3.987	67.009
R-Squared (R^2) = 0.960 Adjusted R-Squared = 0.960 F-Statistic = 2685.438 Durbin-Watson Statistic = 1.673		

Source: Appendix 5

TABLE 4.11

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.16 WITH PROBABILITY $\alpha = 5\%$

VARIABLE	REGRESSION COEFFICIENTS	T – STATISTIC
CONSTANT	0.773	6.328
GP	-2.287	-31.648
SA	4.343	76.245
DGP	3.822	11.304
DSA	-5.327	-14.283
R-Squared (R^2) = 0.981 Adjusted R-Squared = 0.981 F-Statistic = 2846.503 Durbin-Watson Statistic = 1.959		

Source: Appendix 5

TABLE 4.12

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.17 WITH PROBABILITY α = 5%

VARIABLE	REGRESSION COEFFICIENTS	T – STATISTIC
CONSTANT	0.09922	0.319
GTGT10	-3.691	-7.562
SASAT1	-1.239	-1.388
R-Squared (R^2) = 0.522 Adjusted R-Squared = 0.518 F-Statistic = 120.674 Durbin-Watson Statistic = 1.517		

Source: Appendix 5

TABLE 4.13

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.18 WITH PROBABILITY α = 5%

VARIABLE	REGRESSION COEFFICIENTS	T - STATISTIC
CONSTANT	-0.146	-0.554
GTGT10	-0.681	-1.183
SASAT1	-9.458	-7.643
DGTGT10	-0.276	-0.231
DSASAT1	10.955	6.855
R-Squared (R^2) = 0.668 Adjusted R-Squared = 0.662 F-Statistic = 109.975 Durbin-Watson Statistic = 1.163		

Source: Appendix 5

Tables 4.6 to table 4.13 are performed in order to support the 3rd hypothesis test.

Next, we need to remove several companies that are considered to be the outliers, which did not have strong correlation to the stock price. Thus, the result for each equation after removing the outliers can be seen in the tables below:

TABLE 4.14

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.4 WITH PROBABILITY $\alpha = 5\%$

VARIABLE	REGRESSION COEFFICIENTS	T - STATISTIC
CONSTANT	1.071	8.154
ET	0.853	2.089
R-Squared (R^2) = 0.020 Adjusted R-Squared = 0.015 F-Statistic = 4.365 Durbin-Watson Statistic = 0.864		

Source: Appendix 6

From the analysis result as shown in Table 4.14 above, we can arrange the regression equation as follows:

$SP_t = 1.071 + 0.853\ E_t$

Tstatistic = (8.154) (2.089)

TABLE 4.15

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.5 WITH PROBABILITY $\alpha = 5\%$

VARIABLE	REGRESSION COEFFICIENTS	T - STATISTIC
CONSTANT	0.03123	1.171
ETET1	-0.0111	-0.407

R-Squared (R^2)	= 0.001
Adjusted R-Squared	= -0.004
F-Statistic	= 0.166
Durbin-Watson Statistic	= 1.004

Source: Appendix 6

From the analysis result as shown in Table 4.15 above, we can arrange the regression equation as follows:

$$SP_t - SP_{t-1} = 0.03123 - 0.0111\ E_t - E_{t-1}$$

Tstatistic = (1.171) (-0.407)

TABLE 4.16

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.6 WITH PROBABILITY α = 5%

VARIABLE	REGRESSION COEFFICIENTS	T – STATISTIC
CONSTANT	0.841	14.474
E	0.163	0.695
DE	0.144	0.379
R-Squared (R^2)	= 0.007	
Adjusted R-Squared	= -0.002	
F-Statistic	= 0.758	
Durbin-Watson Statistic	= 1.654	

Source: Appendix 6

From the analysis result as shown in Table 4.16 above, we can arrange the regression equation as follows:

$$SP_t = 0.841 + 0.163\ E_t + 0.144\ DE_t$$

Tstatistic = (14.474) (0.695) (0.379)

TABLE 4.17

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.9 WITH PROBABILITY $\alpha = 5\%$

VARIABLE	REGRESSION COEFFICIENTS	T - STATISTIC
CONSTANT	0.03143	1.185
ETET1	-0.0226	-0.698
DETET1	0.319	2.136
R-Squared (R^2) = 0.023 Adjusted R-Squared = 0.013 F-Statistic = 2.309 Durbin-Watson Statistic = 1.602		

Source: Appendix 6

From the analysis result as shown in Table 4.17 above, we can arrange the regression equation as follows:

$$SP_t - SP_{t-1} = 0.03143 - 0.0226\, E_t - E_{t-1} + 0.319\, DE_t - E_{t-1}$$

$$\text{Tstatistic} = (1.185) \quad (-0.698) \quad (2.136)$$

TABLE 4.18

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.10 WITH PROBABILITY $\alpha = 5\%$

VARIABLE	REGRESSION COEFFICIENTS	T- STATISTIC
CONSTANT	0.859	14.183
E	0.308	1.559
METET1	-0.458	-0.698
R-Squared (R^2) = 0.012 Adjusted R-Squared = 0.003 F-Statistic = 1.272 Durbin-Watson Statistic = 1.732		

Source: Appendix 6

From the analysis result as shown in Table 4.18 above, we can arrange the regression equation as follows:

$$SP_t = 0.859 + 0.308\ E_t - 0.458\ ME_t - E_{t-1}$$

$$\text{Tstatistic} = (14.183) \quad (1.559) \quad (-0.698)$$

TABLE 4.19

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.11 WITH PROBABILITY $\alpha = 5\%$

VARIABLE	REGRESSION COEFFICIENTS	T –STATISTIC
CONSTANT	0.03059	1.142
ETET1	-0.0103	-0.377
METET1	-0.101	-0.331
R-Squared (R^2) = 0.001 Adjusted R-Squared = -0.009 F-Statistic = 0.137 Durbin-Watson Statistic = 0.795		

Source: Appendix 6

From the analysis result as shown in Table 4.19 above, we can arrange the regression equation as follows:

$$SP_t - SP_{t-1} = 0.03059 - 0.0103\ E_t - E_{t-1} - 0.101\ ME_t - E_{t-1}$$

$$\text{Tstatistic} = (1.142) \quad (-0.377) \quad (-0.331)$$

TABLE 4.20

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.12 WITH PROBABILITY α = 5%

VARIABLE	REGRESSION COEFICIENTS	T - STATISTIC
CONSTANT	0.859	14.148
E	0.272	1.117
DE	-0.497	-0.736
METET1	0.104	0.257
R-Squared (R^2) = 0.013 Adjusted R-Squared = -0.002 F-Statistic = 0.866 Durbin-Watson Statistic = 1.812		

Source: Appendix 6

From the analysis result as shown in Table 4.20 above, we can arrange the regression equation as follows:

$$SP_t = 0.859 + 0.272\,E_t - 0.497\,DE_t + 0.104\,ME_t - E_{t-1}$$

Tstatistic = (14.148) (1.117) (-0.736) (0.257)

TABLE 4.21

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.13 WITH PROBABILITY α = 5%

VARIABLE	REGRESSION COEFFICIENTS	T - STATISTIC
CONSTANT	0.02851	1.075
ETET1	-0.0222	-0.686
METET1	-0.466	-1.390
DETET1	0.416	2.528

R-Squared (R^2)	= 0.033
Adjusted R-Squared	= 0.018
F-Statistic	= 2.191
Durbin-Watson Statistic	= 1.932

Source: Appendix 6

From the analysis result as shown in Table 4.21 above, we can arrange the regression equation as follows:

$$SP_t - SP_{t-1} = 0.02851 - 0.0222\ E_t - E_{t-1} - 0.466\ ME_t - E_{t-1} + 0.416\ DE_t - E_{t-1}$$

Tstatistic = (1.075) (-0.686) (-1.390) (2.528)

TABLE 4.22

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.15 WITH PROBABILITY α = 5%

VARIABLE	REGRESSION COEFFICIENTS	T - STATISTIC
CONSTANT	0.403	8.297
GP	1.267	8.390
SA	-0.611	-3.332
R-Squared (R^2)	= 0.445	
Adjusted R-Squared	= 0.439	
F-Statistic	= 76.434	
Durbin-Watson Statistic	= 1.953	

Source: Appendix 6

From the analysis result as shown in Table 4.22 above, we can arrange the regression equation as follows:

$$SP_t = 0.403 - 1.267\ GP_t - 0.611\ SA_t$$

Tstatistic = (8.297) (8.390) (-3.332)

TABLE 4.23

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.16 WITH PROBABILITY α = 5%

VARIABLE	REGRESSION COEFFICIENTS	T – STATISTIC
CONSTANT	0.393	7.931
GP	1.217	5.978
SA	-0.332	-1.286
DGP	0.143	0.486
DSA	-0.527	-1.416
R-Squared (R^2) = 0.464 Adjusted R-Squared = 0.453 F-Statistic = 41.119 Durbin-Watson Statistic = 1.690		

Source: Appendix 6

From the analysis result as shown in Table 4.23 above, we can arrange the regression equation as follows:

$SP_t = 0.393 + 1.217\ GP_t - 0.332\ SA_t + 0.143\ DGP_t - 0.527\ DSA_t$

Tstatistic = (7.931) (5.978) (-1.286) (0.486) (-1.416)

TABLE 4.24

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.17 WITH PROBABILITY α = 5%

VARIABLE	REGRESSION COEFFICIENTS	T - STATISTIC
CONSTANT	0.02053	0.740
GTGT10	0.168	1.707
SASAT1	-0.00236	-0.012

R-Squared (R^2)	= 0.015
Adjusted R-Squared	= 0.005
F-Statistic	= 1.459
Durbin-Watson Statistic	= 1.549

Source: Appendix 6

From the analysis result as shown in Table 4.24 above, we can arrange the regression equation as follows:

$$SP_t - SP_{t-1} = 0.02053 + 0.168\ GP_t - GP_{t-1} - 0.00236\ SA_t - SA_{t-1}$$

$$\text{Tstatistic} = (0.740) \quad (1.707) \quad (-0.012)$$

TABLE 4.25

THE RESULT OF REGRESSION ANALYSIS ON 112 COMPANIES ON EQUATION 3.18 WITH PROBABILITY α = 5%

VARIABLE	REGRESSION COEFFICIENTS	T - STATISTIC
CONSTANT	0.01778	0.640
GTGT10	0.08706	0.655
SASAT1	0.003156	0.009
DGTGT10	0.602	2.337
DSASAT1	-0.947	-1.380

R-Squared (R^2)	= 0.056
Adjusted R-Squared	= 0.036
F-Statistic	= 2.808
Durbin-Watson Statistic	= 1.757

Source: Appendix 6

From the analysis result as shown in Table 4.25 above, we can arrange the regression equation as follows:

$$SP_t - SP_{t-1} = 0.01778 + 0.08706\ GP_t - GP_{t-1} + 0.003156\ SA_t - SA_{t-1}$$
$$+ 0.602\ DGP_t - GP_{t-1} - 0.947\ DSA_t - SA_{t-1}$$

$$\text{Tstatistic} = (0.640) \quad (0.655) \quad (0.009) \quad (2.337) \quad (-1.380)$$

Afterward, we test the hypothesis in order to know whether there is a significant influence or not in the independent variables to the dependent variable in statistics. To test the independent variables in partial for each hypothesis, I use ρ – value test.

4.2.1 Testing the Regression Coefficients for Independent Variables

4.2.1.1. Testing the 1st hypothesis: The Association of Earnings with Stock Price

$H_0 : \beta_1 \leq 0$; Earnings is not positively associated with stock price.

$H_A : \beta_1 > 0$; Earnings is positively associated with stock price.

If : ρ – value $\geq \alpha$ then do not reject Ho.

If : ρ – value $< \alpha$ then reject Ho.

Based on the calculation that I have done, it shows that:

1. In Table 4.14 (Equation 3.4), the test for year *t*, shows that the coefficient of earnings in here is positive and its ρ – value is 0.038. The α with the 5% degree of significant is 0.05, in which it means that ρ – value is lower than α or ρ – value $< \alpha$. Therefore H_0 is rejected and accepts the alternative hypothesis. It means that an earnings is positively associated with stock price for year *t*.
2. In Table 4.15 (Equation 3.5), the test for changes of earnings for year t to year $t - 1$, shows that the coefficient of earnings in here is negative and its ρ – value is 0.684. The α with the 5% degree of significant is 0.05, in which it means that ρ – value is bigger than α or ρ – value $\geq \alpha$. Therefore

H_0 is accepted. It means that an earning is not positively associated with stock price for the changes level.

3. In Table 4.16 (Equation 3.6), the test is using pooled data to know which sample group has the informativeness of change in inventory that would be useful for firm valuation for year *t*. Within this computation, the result shows that the coefficient both of earnings and DE_t in here are positive. The ρ – value of earnings is 0.488 and ρ – value of DE_t is 0.705. The α with the 5% degree of significant is 0.05, in which it means that ρ – value for both independent variable are bigger than α or ρ – value ≥ α. Therefore H_0 is accepted. It means that earnings are not positively associated with stock price for year *t*.
4. In Table 4.17 (Equation 3.9), the test using pooled data to know which sample group has informativeness of change in inventory that would be useful for firm valuation for changes level. Within this computation, the result shows that coefficient of earnings here is negative meanwhile the coefficient of $DE_t - E_{t-1}$ in here is positive. The ρ – value of earnings is 0.486 and ρ – value of $DE_t - E_{t-1}$ is 0.034. The α with the 5% degree of significant is 0.05, in which it means that ρ – value of earnings is bigger than α or ρ – value ≥ α. Therefore H_0 is accepted. It means that an earnings is not positively associated with stock price for changes level. But an earnings is positively associated with stock price for changes level in relationship with $DE_t - E_{t-1}$.

Therefore, based on the explanation of results on several tests on regression equation models above, in overall, we can conclude that we have to accept H_0 or accept null hypothesis. It means that earnings are not positively associated with stock price. This is based on the analyses by using p-value approach that has shown above. During the year 2003 up to 2004, we can see that p-value for variable of earnings for each of regression test (from equation 3.5 to equation 3.9) is mostly bigger than $\alpha = 5\%$. And it is the same for the coefficient for each of regression test above, for changes level, it shows that earnings have negative sign instead of positive sign on year level.

4.2.1.2. Testing the 2nd hypothesis: The Association of Increase in Inventory with Stock Price

H_0 : $\beta_1 \geq 0$; There is no negative association between increase in inventory and stock price.

H_A : $\beta_1 < 0$; There is negative association between increase in inventory and stock price.

If : ρ – value $\geq \alpha$ then do not reject Ho.

If : ρ – value $< \alpha$ then reject Ho.

Based on the calculation that I have done, it shows that:

1. In Table 4.18 (Equation 3.10), the test for year *t*, shows that the coefficient of earnings in here is positive, meanwhile coefficient of inventory method here is negative. Thus, the ρ – value of earnings is 0.121 and ρ – value of inventory method is 0.486. The α with the 5% degree of significant is 0.05,

in which it means that ρ – value both for earnings and inventory method are bigger than α or ρ – value ≥ α. Therefore H_0 is accepted. It means that there is no negative association between increase in inventory and stock price for year *t*.

2. In Table 4.19 (Equation 3.11), the test for changes level, shows that coefficient for both of earnings and inventory method in here are negative. Thus, the ρ – value of earnings is 0.707 and ρ – value of inventory method is 0.741. The α with the 5% degree of significant is 0.05, in which it means that ρ – value both for earnings and inventory method are bigger than α or ρ – value ≥ α. Therefore H_0 is accepted. It means that there is no negative association between increase in inventory and stock price for changes level.

Therefore, based on the explanation of results on several tests on regression equation models above, in overall, we can conclude that we have to accept H_0 or accept null hypothesis. It means that there is no negative association between increase in inventory and stock price. This is based on the analyses by using p-value approach that has been shown above. During the year 2003 up to 2004, we can see that p-value for variable of earnings for each of regression test (from equation 3.10 to equation 3.11) is bigger than α = 5%. And it is the same for the coefficient for each of regression test above, for changes level, it shows that earnings is have negative sign instead positive sign on year level.

4.2.1.3. Testing the 3rd hypothesis: Association on Earnings between Increase in Inventory and Stock Price.

$H_0 : \beta_1 \geq 0$; There is no positive association on earnings between increase in inventory and stock price.

$H_A : \beta_1 < 0$; There is positive association on earnings between increase in inventory and stock price.

If : ρ – value $\geq \alpha$ then do not reject Ho.

If : ρ – value $< \alpha$ then reject Ho.

Based on the calculation that I have done, it shows that:

1. In Table 4.20 (Equation 3.12), the test for year *t*, for two sample groups, shows that coefficient for both of earnings and DE_t in here are positive, meanwhile the coefficient for inventory method is negative. Thus, the ρ – value of earnings is 0.265, ρ – value of inventory method is 0.463, and ρ – value of DE_t is 0.797. The α with the 5% degree of significant is 0.05, in which it means that ρ – value both for earnings, inventory method, and DE_t are bigger than α or ρ – value $\geq \alpha$. Therefore H_0 is accepted. It means that there is no positive association on earnings between increase in inventory and stock price for year *t*.
2. In Table 4.21 (Equation 3.13), the test for changes level for two sample groups, shows that the coefficient for both of earnings and inventory method is negative, meanwhile the coefficient for $DE_t - E_{t-1}$ in here is positive. Thus, the ρ – value of earnings is 0.493, ρ – value of inventory method is 0.166, and ρ – value of $DE_t - E_{t-1}$ is 0.012. The α with the 5%

degree of significant is 0.05, in which it means that ρ - value both for earnings and inventory method are bigger than α or ρ – value ≥ α. Meanwhile for $DE_t - E_{t-1}$, its ρ – value is lower than α or ρ – value < α. Therefore H_0 is accepted. It means that there is no positive association on earnings between increase in inventory and stock price for changes level. However, there is a positive association on earnings between increase in inventory and stock price for changes level in relationship with $DE_t - E_{t-1}$.

3. In Table 4.22 (Equation 3.15), the test to know the connection between earnings and stock price for year *t*, shows that the coefficient for both of Gross Profit and Selling and Administrative Expense are positive. Thus, the ρ – value of Gross Profit is 0.000, and ρ – value of Selling and Administrative Expense is 0.001. The α with the 5% degree of significant is 0.05, in which it means that ρ - value both for Gross Profit and Selling and Administrative Expense are lower than α or ρ – value < α. Therefore H_0 is rejected and accept the alternative hypothesis. It means that there is positive association on earnings between increase in inventory and stock price in relationship both with Gross Profit and Selling and Administrative Expense in year *t*.
4. In Table 4.23 (Equation 3.16), the test to know connection between earnings and stock price for year *t* between two sample groups, shows that coefficient for both of Gross Profit and DGP_t are positive meanwhile the coefficient for both Selling and Administrative Expense and DSA_t are negative. Thus, the ρ – value of Gross Profit is 0.000, ρ – value of Selling

and Administrative Expense is 0.200, ρ – value of DGP is 0.628, and ρ – value of DSA is 0.080. The α with the 5% degree of significant is 0.05, in which it means that ρ – value for Gross Profit is lower than α or ρ – value < α. Therefore, H_0 is rejected and accept the alternative hypothesis. It means that there is a positive association on earnings between increase in inventory and stock price in relationship with gross profit for year *t*. Meanwhile for Selling and Administrative Expense and DSA_t, its ρ – value is higher than α or ρ – value ≥ α. It means that there is no positive association on earnings between increase in inventory and stock price in relationship with Selling and Administration Expense.

5. In Table 4.24 (Equation 3.17), the test to know the connection between earnings and stock price for changes level, shows that coefficient of Gross Profit is positive meanwhile the coefficient for Selling and Administrative Expense is negative. Thus, the ρ – value of Gross Profit is 0.089, and ρ – value of Selling and Administrative Expense is 0.991. The α with the 5% degree of significant is 0.05, in which it means that ρ - value for both Gross Profit and Selling and Administrative Expense are bigger than α or ρ – value ≥ α. Therefore, H_0 is accepted. It means that there is no positive association on earnings between increase in inventory and stock price in relationship both with gross profit and Selling and Administrative Expense.
6. In Table 4.25 (Equation 3.18), the test to know connection between earnings and stock price for changes level for two sample groups, shows

that coefficient of Gross Profit, Selling and Administrative Expense and $DG_t - G_{t-1}$ are positive. Meanwhile, the coefficient for $DSA_t - SA_{t-1}$ is negative. Thus, the ρ – value of Gross Profit is 0.513, ρ – value of Selling and Administrative Expense is 0.992, ρ – value of $DG_t - G_{t-1}$ is 0.020 and ρ – value of $DSA_t - SA_{t-1}$ is 0.169. The α with the 5% degree of significant is 0.05, in which it means that ρ - value for both Gross Profit, Selling and Administrative Expense, and $DSA_t - SA_{t-1}$ are bigger than α or ρ – value $\geq \alpha$. Therefore H_0 is accepted. It means that there is no positive association on earnings between increase in inventory and stock price in relationship both with Gross Profit, Selling and Administrative Expense and $DSA_t - SA_{t-1}$. Meanwhile, ρ - value for $DG_t - G_{t-1}$ is lower than α or ρ – value $< \alpha$. Therefore, it means that there is positive association on earnings between increase in inventory and stock price in relationship with $DG_t - G_{t-1}$.

Therefore, based on explanation of results on several tests on regression equation models above, in overall, we can conclude that we have to accept H_0 or accept null hypothesis. Meaning to say, there is not any positive association on earnings between increase in inventory and stock price. This thing is based on analyses by using p-value approach that has been shown above. During the year 2003 up to 2004, we can see that p-value for the variable of earnings for each of regression test (from equation 3.12 to equation 3.18) is mostly bigger than $\alpha = 5\%$. Although for only equation 3.13 of variable of earnings has negative sign instead of positive sign on the rest.

4.2.2. Classical Assumptions test in Multiple Regressions

In a linear multiple regression analysis, the deviation of classical assumption should be avoided. Therefore, in order to find out whether the result of the regression equations above can be used, it needs to be tested further to know whether the deviations of the classical assumption occur in the model or not. Thus, there are several kinds of tests that are being used in this research to find out and overcome the classical assumptions' problem that occurs within the computation of regression.

4.2.2.1. Test of Multicollinearity

Multicollinearity refers to the situation where there is an existence of a "perfect", or exacts, linear relationship among some or all-explanatory variables of a regression model. Strictly speaking, multicollinearity refers to the existence of more than one exact linear relationship, and collinearity refers to the existence of a single linear relationship. If there is a linear relationship among independent variables, then this regression is considered to have a multicollinearity problem. If there is multicollinearity in the model, then it is hard to separate the influence of each independent variable to the dependent variable.

In detecting whether the regression model has a multicollinearity or not, we can see that from the value of R^2 or the coefficient determination is high (such as: between 0.7 and 1), and the partial coefficient correlation between independent variable is bigger or equal compare to the R^2, then this regression is considered to have a multicollinearty problem.

Based on the calculation results:

1. The value of R^2 is relatively low (See Appendix 6).
2. The values of Variance Inflation Factor (VIF), the reciprocal of the tolerance. As the variance inflation factor increases, so does the variance of the regression coefficient, making it an unstable estimation. Large VIF values higher than 10 are an indicator of multicollinearity or its tolerance tend to be closer to 0 (zero).

From table equation 3.16 a significance of multicollinearity is found. However, its tolerance still above 0 (not exactly close to 0 (zero)). Therefore, it can be concluded that multicollinearity problem is not found in this regression model. And from table 3.4 up to 3.15, and 3.17 up to 3.18, it can be said that there is no multicollinearity problems, considered both its VIF tend to be lower than 10 (ten) and its Tolerance (TOL) is not close to 0 (zero). Therefore, in that case, we can say that in these regression models, multicollinearity problems have not occurred.

4.2.2.2. Test of Autocorrelation

The objective of this test is to find out whether this regression consists of serial correlation between the disturbance terms (e) or not. The most celebrated test for detecting serial correlation is developed by statisticians Durbin-Watson d statistic. While using d statistic, it is important to note the assumption underlying d statistic:

1. The regression model includes an intercept term.
2. The explanatory variables, the X's, is nonstochastic, or fixed in repeated sampling.
3. the disturbances u_t are generated by the first-order autoregressive scheme:

$$u_t = \rho = u_{t-1} + \varepsilon_t.$$

4. The regression model does not include lagged value(s) of the dependent variable as one of the explanatory variables. Thus, the test is inapplicable to models of the following type:

$$Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \ldots + \beta_k X_{kt} + \gamma Y_{t-1} + u_t.$$

5. There are no missing observations in the data.

The hypothesis for this test is:

$H_0 : \rho = 0$: there are no positive autocorrelation.

$H_A : \rho \neq 0$: there are positive autocorrelation.

If $d > d_U$ then Ho is accepted. It means that there is no positive correlation. If $d < d_L$ then Ho is rejected. It means that there is a positive correlation. If $d_L < d < d_U$, then the result of the Durbin-Watson calculation is in the area of no conclusion, therefore the result of the test can not be concluded.

In here, I'm using E-Views program to detect and overcome the autocorrelation problem. Because, the computer program E-Views performs an exact *d* test (it gives the ρ value, the exact probability, of the computed *d* value), and those with access to this program may want to use that test in case the usual *d* statistic lies in the indecisive zone. From the result of the calculation, I found that there are positive autocorrelations in the equations 3.4, 3.5, 3.6, 3.10, 3.11, 3.16,

and 3.17. Besides, it is found a greater autocorrelation in these regression models because of unnormalized data. So, first of all, we have to normalize them before transforming them into a new regression model.

In order to handle the autocorrelation in these regression models, therefore, we need to transform the data into a new equation by using generalized difference equation method (Gujarati, 2003). It means that the regression of Y to X is not in the original form, but it is on the difference which is received from eliminating a proportion (ρ) of related value variable with the previous value variable. The equation is as follows:

$$(Y_t - \rho Y_{t-1}) = A(1 - \rho) + B(X_t - \rho X_{t-1}) + \mu_t$$

In the procedure of elimination, the first observation will be lost because there are no previous observations before it. To prevent the missing value in the first observation, then at the first observation Y and X is change into this form:

$$Y\sqrt{1 - \rho^2} \text{ and } X\sqrt{1 - \rho^2}$$

The value of ρ is from *d* (Durbin-Watson Statistic) by using the formula which is written by Gujarati, Damodar (2003) as follows:

$$\rho = 1 - d/2$$

The benefits that are received from doing the transformation data into a new form theoretically will make the value among the observation in each variable to be smaller so that there is a possibility to remove the influence of the autocorrelation in the model.

Regression Result after Transforming the Data

The result of the regression analysis after the transformation data as what we seen previously using the generalized difference equation method can be seen in tables below:

TABLE 4.26 (EQUATION 3.4)

THE RESULT OF REGRESSION ANALYSIS AFTER DATA TRANSFORMATION

VARIABLES	REGRESSION COEFFICIENTS	T – STATISTIC
CONSTANT	-0.051500	-0.714276
Diff Et	0.904773	2.732013
R-Squared (R^2) = 0.046285 Adjusted R-Square = 0.041890 F-Statistic = 10.53119 Durbin-Watson Statistic = 2.633344		

Source: Appendix 7

TABLE 4.27 (EQUATION 3.5)

THE RESULT OF REGRESSION ANALYSIS AFTER DATA TRANSFORMATION

VARIABLES	REGRESSION COEFFICIENTS	T – STATISTIC
CONSTANT	-0.002000	-0.158943
Diff ETET1	-0.017660	-0.981200
R-Squared (R^2) = 0.003280 Adjusted R-Square = -0.001857 F-Statistic = 0.638464 Durbin-Watson Statistic = 2.911313		

Source: Appendix 7

TABLE 4.28 (EQUATION 3.6)

THE RESULT OF REGRESSION ANALYSIS AFTER DATA TRANSFORMATION

VARIABLES	REGRESSION COEFFICIENTS	T – STATISTIC
CONSTANT	-0.000347	-0.009319
Diff Et	0.175630	0.370432
Diff DEt	0.511803	1.050526
R-Squared (R^2) = 0.032633 Adjusted R-Square = 0.023008 F-Statistic = 3.390286 Durbin-Watson Statistic = 2.961905		

Source: Appendix 7

TABLE 4.29 (EQUATION 3.10)

THE RESULT OF REGRESSION ANALYSIS AFTER DATA TRANSFORMATION

VARIABLES	REGRESSION COEFFICIENTS	T – STATISTIC
CONSTANT	-0.002134	-0.023131
Diff Et	1.796325	1.569609
Diff METET1	4.561975	1.492456
R-Squared (R^2) = 0.199312 Adjusted R-Square = 0.191423 F-Statistic = 25.26598 Durbin-Watson Statistic = 2.886901		

Source: Appendix 7

TABLE 4.30 (EQUATION 3.11)

THE RESULT OF REGRESSION ANALYSIS AFTER DATA TRANSFORMATION

VARIABLES	REGRESSION COEFFICIENTS	T – STATISTIC
CONSTANT	-0.002176	-0.214205
Diff ETET1	-0.013881	-0.599581
Diff METET1	-0.094117	-0.343103
R-Squared (R^2) = 0.005001 Adjusted R-Square = -0.005310 F-Statistic = 0.484986 Durbin-Watson Statistic = 2.973147		

Source: Appendix 7

TABLE 4.31 (EQUATION 3.16)

THE RESULT OF REGRESSION ANALYSIS AFTER DATA TRANSFORMATION

VARIABLES	REGRESSION COEFFICIENTS	T – STATISTIC
CONSTANT	0.005646	0.208549
Diff GP	0.783735	2.971209
Diff SA	0.179462	0.497390
Diff DGP	1.171764	2.334638
Diff DSA	-1.701002	-2.999913
R-Squared (R^2) = 0.520706 Adjusted R-Square = 0.510563 F-Statistic = 51.33258 Durbin-Watson Statistic = 2.934553		

Source: Appendix 7

TABLE 4.32 (EQUATION 3.17)

THE RESULT OF REGRESSION ANALYSIS AFTER DATA TRANSFORMATION

VARIABLES	REGRESSION COEFFICIENTS	T – STATISTIC
CONSTANT	0.002348	0.164177
Diff GTGT10	0.105494	1.044606
Diff SATSAT1	0.163739	1.190498
R-Squared (R^2) = 0.012194 Adjusted R-Square = 0.001958 F-Statistic = 1.191282 Durbin-Watson Statistic = 2.853203		

Source: Appendix 7

The result of the regression analysis after the transformation data as what we seen previously will be retested in order to know whether these models contain any classical assumption problem or not.

1. Test of Multicollinearity.

In testing multicollinearity, we still see the value of R^2 or the coefficients determination and the VIF (Variance Inflation Factor).

a. The value of R^2 is low (See Appendix 7)

b. The values of VIF that is not close to zero and not higher than 10.

Based on this test we can say that there are no multicollinearity problems that occur in these regression models.

2. Test of Autocorrelation.

Based on the results of the regression after transforming the data from tables 4.26 up to 4.32, we can see that the values of Durbin-Watson in these tables

are quite higher than the d_U for each equation. Therefore, we reject H_o and accept the alternate hypothesis. In this case we find no autocorrelation problems anymore and this model is considered to be free from autocorrelation problems.

4.2.2.3. Test of Heteroscedasticity

Heteroscedasticity is a situation where the variance is not constant, the consequences from heteroscedasticity will be bias on variance, and therefore the test of significant will not be perfect. To see whether there is any heteroscedasticity in the model or not, we can use the Park test or White's test. In this term, to make it easier in detecting and treating the heteroscedasticity problem, therefore, I'm using E-views to investigate whether my data contains any heteroscedasticity by using White's test and Newey-West HAC test. The general test of heteroscedasticity proposed by White does not rely on the normality assumption and is easy to implement. As an illustration of the basic idea, consider the following three-variable regression model (the generalization to the *k*-variable model is straightforward):

$$Y_i = \beta_1 + \beta_2 X_{2i} + \beta_3 X_{3i} + u_i. \qquad \text{(a)}$$

The White test proceeds as follows:

1. Given the data, we estimate (a) and obtain the residual, $\hat{u}_i$.
2. We then run the following *(auxiliary)* regression:

$$\hat{u}_i^2 = \alpha_1 + \alpha_2 X_{2i} + \alpha_3 X_{3i} + \alpha_4 X_{2i}^2 + \alpha_5 X_{3i}^2 + \alpha_6 X_{2i} X_{3i} + \upsilon_i. \qquad \text{(b)}$$

That is, the squared residuals from the original regression are regressed on the original X variables or regressors, their squared values, and the cross

product(s) of the regressors. Higher powers of regressors can also be introduced. Note that there is a constant term in this equation even though the original regression may or may not contain it. Obtain the R^2 from this (auxiliary) regression.

3. Under the null hypothesis that there is no heteroscedasticity, it can be shown that the sample size (n) times the R^2 obtained from the auxiliary regression asymptotically follows the chi-square distribution with df equal to the number of regressors (excluding the constant term) in the auxiliary regression. That is:

$$n \cdot R^2 \underset{asy}{\sim} X_{df}^2 \qquad (c)$$

where df is as defined previously. In our example, there are 5 df since there are 5 regressors in the auxiliary regression.

4. If the chi-square value obtained in (c) exceeds the critical chi-square value at the chosen level of significance, the conclusion is that there is heteroscedasticity. If it does not exceeds the critical chi-square value, there is no heteroscedasticity, which is to say that in the auxiliary regression (b), $\alpha_2 = \alpha_3 = \alpha_4 = \alpha_5 = \alpha_6 = 0$.

After long testing on this term, it is found heteroscedasticity in all equation tables. So, I have to transform them until there is no more heteroscedasticity in those regression models.

TABLE 4.33 (EQUATION 3.4)

THE RESULT OF HETEROSCEDASTICITY TRANSFORMATION

Independent Variables	$T_{critical}$	$t_{observed}$	Significant
E_t	± 1.96	2.732013	0.0068 (not significant)

Source: Appendix 7

Based on the regression result between the log residual square value and the independent variables (Table 4.33), we can see that the value of $t_{observed}$ is bigger than the $t_{critical}$. However, the beta parameter is not significant in statistic. So it can be concluded that there is no more heteroscedasticity in this regression model. The regression model in this research is the regression model after transforming the data for the autocorrelation problem, that is:

$P_t = -0.0515 + 0.904773\ E_t$.

TABLE 4.34 (EQUATION 3.5)

THE RESULT OF HETEROSCEDASTICITY TRANSFORMATION

Independent Variables	$T_{critical}$	$t_{observed}$	Significant
$E_t - E_{t-1}$	± 1.96	-0.9812	0.3277 (not significant)

Source: Appendix 7

Based on the regression result between log residual square value and the independent variables (Table 4.34), we can see that the value of $t_{observed}$ is lower than the $t_{critical}$, and the beta parameter is not significant in statistic. So it can be concluded that there is no more heteroscedasticity in this regression model. The

regression model in this research is the regression model after transforming the data for the autocorrelation problem, that is:

$P_t - P_{t-1} = -0.002 - 0.01766\ E_t - E_{t-1}$.

TABLE 4.35 (EQUATION 3.6)

THE RESULT OF HETEROSCEDASTICITY TRANSFORMATION

Independent Variables	$T_{critical}$	$t_{observed}$	Significant
E_t	± 1.96	0.370432	0.7115 (not significant)
DE_t	± 1.96	1.050526	0.2947 (not significant)

Source: Appendix 7

Based on the regression result between log residual square value and the independent variables (Table 4.35), we can see that the values of tobserved for all of independent variables are lower than the $t_{critical}$, and the beta parameter is not significant in statistic. So it can be concluded that there is no more heteroscedasticity in this regression model. The regression model in this research is the regression model after transforming the data for the autocorrelation problem, that is:

$P_t = -0.000347 + 0.17563\ E_t + 0.511803\ DE_t$.

TABLE 4.36 (EQUATION 3.9)

THE RESULT OF HETEROSCEDASTICITY TRANSFORMATION

Independent Variables	$T_{critical}$	$t_{observed}$	Significant
$E_t - E_{t-1}$	± 1.96	-1.263058	0.2081 (not significant)
$DE_t - E_{t-1}$	± 1.96	2.508614	0.0129 (not significant)

Source: Appendix 7

Based on the regression result between log residual square value and the independent variables (Table 4.36), we can see that the value of $t_{observed}$ is lower for $E_t - E_{t-1}$ than the $t_{critical}$ and bigger for $DE_t - E_{t-1}$ than $t_{critical}$. However, the beta parameter for all independent variables is not significant in statistic. So it can be concluded that there is no more heteroscedasticity in this regression model. The regression model in this research is the regression model after transforming the data for the autocorrelation problem, that is:

$P_t - P_{t-1} = 0.031427 - 0.022607\ E_t - E_{t-1} + 0.318501\ DE_t - E_{t-1}$.

TABLE 4.37 (EQUATION 3.10)

THE RESULT OF HETEROSCEDASTICITY TRANSFORMATION

Independent Variables	$T_{critical}$	$t_{observed}$	Significant
E_t	± 1.96	1.569609	0.1101 (not significant)
$ME_t - E_{t-1}$	± 1.96	1.492456	0.1371 (not significant)

Source: Appendix 7

Based on the regression result between log residual square value and the independent variables (Table 4.37), we can see that the value of $t_{observed}$ for all of independent variables are lower than the $t_{critical}$ and, the beta parameter for all independent variables is not significant in statistic. So it can be concluded that there is no more heteroscedasticity in this regression model. The regression model in this research is the regression model after transforming the data for the autocorrelation problem, that is:

$P_t = -0.002134 + 1.796325\ E_t + 4.561975\ ME_t - E_{t-1}$.

TABLE 4.38 (EQUATION 3.11)

THE RESULT OF HETEROSCEDASTICITY TRANSFORMATION

Independent Variables	$T_{critical}$	$t_{observed}$	Significant
$E_t - E_{t-1}$	± 1.96	-0.599581	0.5495 (not significant)
$ME_t - E_{t-1}$	± 1.96	-0.343103	0.7319 (not significant)

Source: Appendix 7

Based on the regression result between log residual square value and the independent variables (Table 4.38), we can see that the value of $t_{observed}$ for all of independent variables are lower than the $t_{critical}$ and, the beta parameter for all independent variables is not significant in statistic. So it can be concluded that there is no more heteroscedasticity in this regression model. The regression model in this research is the regression model after transforming the data for the autocorrelation problem, that is:

$$P_t - P_{t-1} = -0.002176 - 0.013881\ E_t - E_{t-1} - 0.094117\ ME_t - E_{t-1}.$$

TABLE 4.39 (EQUATION 3.12)

THE RESULT OF HETEROSCEDASTICITY TRANSFORMATION

Independent Variables	$T_{critical}$	$t_{observed}$	Significant
E_t	± 1.96	0.619767	0.5361 (not significant)
DE_t	± 1.96	0.246079	0.8059 (not significant)
$ME_t - E_{t-1}$	± 1.96	-1.096639	0.2741 (not significant)

Source: Appendix 7

Based on the regression result between log residual square value and the independent variables (Table 4.39), we can see that the value of $t_{observed}$ for all of independent variables are lower than the $t_{critical}$ and, the beta parameter for all independent variables is not significant in statistic. So it can be concluded that there is no more heteroscedasticity in this regression model. The regression model in this research is the regression model after transforming the data for the autocorrelation problem, that is:

$P_t = 0.858662 + 0.271604\ E_t - 0.496965\ ME_t - E_{t-1} + 0.104203\ DE_t$.

TABLE 4.40 (EQUATION 3.13)

THE RESULT OF HETEROSCEDASTICITY TRANSFORMATION

Independent Variables	$T_{critical}$	$t_{observed}$	Significant
$E_t - E_{t-1}$	± 1.96	-1.308802	0.1922 (not significant)
$ME_t - E_{t-1}$	± 1.96	-1.615605	0.1078 (not significant)
$DE_t - E_{t-1}$	± 1.96	2.148177	0.033 (not significant)

Source: Appendix 7

Based on the regression result between log residual square value and the independent variables (Table 4.40), we can see that the value of $t_{observed}$ for both $E_t - E_{t-1}$ and $ME_t - E_{t-1}$ are lower than the $t_{critical}$, meanwhile the value of $t_{observed}$ of $DE_t - E_{t-1}$ is bigger than the $t_{critical}$. However, the beta parameter for all independent variables is not significant in statistic. Therefore, it can be concluded that there is no more heteroscedasticity in this regression model. The regression

model in this research is the regression model after transforming the data for the autocorrelation problem, that is:

$$P_t - P_{t-1} = 0.028515 - 0.022176\ E_t - E_{t-1} - 0.465998\ ME_t - E_{t-1} + 0.4156\ DE_t - E_{t-1}$$

TABLE 4.41 (EQUATION 3.15)

THE RESULT OF HETEROSCEDASTICITY TRANSFORMATION

Independent Variables	$T_{critical}$	$t_{observed}$	Significant
GP_t	± 1.96	4.525983	0.0000 (not significant)
SA_t	± 1.96	-1.719138	0.0872 (not significant)

Source: Appendix 7

Based on the regression result between log residual square value and the independent variables (Table 4.41), we can see that the value of $t_{observed}$ of GP is bigger than the $t_{critical}$, meanwhile the value of $t_{observed}$ of SA_t is lower than the $t_{critical}$. However, the beta parameter for all independent variables is not significant in statistic. So it can be concluded that there is no more heteroscedasticity in this regression model. The regression model in this research is the regression model after transforming the data for the autocorrelation problem, that is:

$$P_t = 0.402955 + 1.267113\ GP_t - 0.610769\ SA_t.$$

TABLE 4.42 (EQUATION 3.16)

THE RESULT OF HETEROSCEDASTICITY TRANSFORMATION

Independent Variables	$T_{critical}$	$t_{observed}$	Significant
GP_t	± 1.96	2.971209	0.0034 (not significant)
SA_t	± 1.96	0.49739	0.6195 (not significant)

DGP_t	± 1.96	2.334638	0.0206 (not significant)
DSA_t	± 1.96	-2.999913	0.0031 (not significant)

Source: Appendix 7

Based on the regression result between log residual square value and the independent variables (Table 4.42), we can see that the values of $t_{observed}$ for both GP_t and DGP_t is bigger than the $t_{critical}$, and the value of $t_{observed}$ of DSA_t is far lower than the $t_{critical}$ compares with SA_t. However, the beta parameter for all independent variables is not significant in statistic. Therefore, it can be concluded that there is no heteroscedasticity anymore in this regression model. The regression model in this research is the regression model after transforming the data for the autocorrelation problem, that is:

$P_t = 0.005646 + 0.783735\ GP_t + 0.179462\ SA_t + 1.171764\ DGP_t - 1.701002\ DSA_t$.

TABLE 4.43 (EQUATION 3.17)

THE RESULT OF HETEROSCEDASTICITY TRANSFORMATION

Independent Variables	**$T_{critical}$**	**$t_{observed}$**	**Significant**
$GP_t - GP_{t-1}$	± 1.96	1.044606	0.2975 (not significant)
$SA_t - SA_{t-1}$	± 1.96	1.190498	0.2353 (not significant)

Source: Appendix 7

Based on the regression result between log residual square value and the independent variables (Table 4.43), we can see the values of $t_{observed}$ for both $GP_t - GP_{t-1}$ and $SA_t - SA_{t-1}$ are lower than the $t_{critical}$, and the beta parameter for all independent variables is not significant in statistic. Therefore, it can be concluded that there is no more heteroscedasticity in this regression model. The

regression model in this research is the regression model after transforming the data for the autocorrelation problem, that is:

$P_t - P_{t-1} = 0.002348 + 0.105494\, GP_t - GP_{t-1} + 0.163739\, SA_t - SA_{t-1}$.

TABLE 4.44 (EQUATION 3.18)

THE RESULT OF HETEROSCEDASTICITY TRANSFORMATION

Independent Variables	$T_{critical}$	$t_{observed}$	Significant
$GP_t - GP_{t-1}$	± 1.96	0.854093	0.3941 (not significant)
$SA_t - SA_{t-1}$	± 1.96	0.011756	0.9906 (not significant)
$DGP_t - GP_{t-1}$	± 1.96	3.835433	0.0002 (not significant)
$DSA_t - SA_{t-1}$	± 1.96	-1.459688	0.146 (not significant)

Source: Appendix 7

Based on the regression result between log residual square value and the independent variables (Table 4.44), we can see that the values of $t_{observed}$ for both $GP_t - GP_{t-1}$, $SA_t - SA_{t-1}$, and $DSA_t - SA_{t-1}$ are lower than the $t_{critical}$, but the values of $t_{observed}$ for $DGP_t - GP_{t-1}$ is higher than the $t_{critical}$. However, the beta parameter for all independent variables is not significant in statistic. Therefore, it can be concluded that there is no more heteroscedasticity in this regression model. The regression model in this research is the regression model after transforming the data for the autocorrelation problem, that is:

$P_t - P_{t-1} = 0.017776 + 0.087057\, GP_t - GP_{t-1} + 0.003156\, SA_t - SA_{t-1} + 0.602228$

$DG_{t-G_{t-1}} - 0.946918\, DSA_t - SA_{t-1}$.

After the model is stated to be free from the classical assumption, we need to retest the independent variables influences, whether there are any significant influences on the dependent variable or not by using p – value approach.

4.2.3. Test of Regression Coefficients after Transforming the Data

After we conducted the data transformation as the action of repairing the data to prevent the classical assumption problems, we find the result of twelve regression models as follows:

$$P_t = -0.0515 + 0.904773\ E_t.$$

T Statistic = (-0.714276) (2.732013)

$$P_t - P_{t-1} = -0.002 - 0.01766\ E_t - E_{t-1}.$$

T Statistic = (-0.158943) (-0.9812)

$$P_t = -0.000347 + 0.17563\ E_t + 0.511803\ DE_t.$$

T Statistic = (-0.009319) (0.370432) (1.050526)

$$P_t - P_{t-1} = 0.031427 - 0.022607\ E_t - E_{t-1} + 0.318501\ DE_t - E_{t-1}.$$

T Statistic = (0.898662) (-1.263058) (2.508614)

The five regression models above are performed to support the 1st hypothesis test.

$$P_t = -0.002134 + 1.796325\ E_t + 4.561975\ ME_t - E_{t-1}.$$

T Statistic = (-0.023131) (1.569609) (1.492456)

$$P_t - P_{t-1} = -0.002176 - 0.013881\ E_t - E_{t-1} - 0.094117\ ME_t - E_{t-1}.$$

T Statistic = (-0.214205) (-0.599581) (-0.343103)

The two regression models above are performed to support the 2nd hypothesis test. Meanwhile, the rest of regression models below are performed to support the 3rd hypothesis, those are:

$$P_t = 0.858662 + 0.271604\, E_t - 0.496965\, ME_t - E_{t-1} + 0.104203\, DE_t.$$

T Statistic = (11.61229) (0.619767) (-1.096639) (0.246079)

$$P_t - P_{t-1} = 0.028515 - 0.022176\, E_t - E_{t-1} - 0.465998\, ME_t - E_{t-1} + 0.4156\, DE_t - E_{t-1}$$

T Statistic = (1.11747) (-1.308802) (-1.615605) (2.148177)

$$P_t = 0.402955 + 1.267113\, GP_t - 0.610769\, SA_t.$$

T Statistic = (7.928073) (4.525983) (-1.719138)

$$P_t = 0.005646 + 0.783735\, GP_t + 0.179462\, SA_t + 1.171764\, DGP_t - 1.701002\, DSA_t.$$

T Statistic = (0.208549) (2.971209) (0.497390) (2.334638) (-2.999913)

$$P_t - P_{t-1} = 0.002348 + 0.105494\, GP_t - GP_{t-1} + 0.163739\, SA_t - SA_{t-1}.$$

T Statistic = (0.164177) (1.044606) (1.190498)

$$P_t - P_{t-1} = 0.017776 + 0.087057\, GP_t - GP_{t-1} + 0.003156\, SA_t - SA_{t-1} + 0.602228\, DG_t - G_{t-1} - 0.946918\, DSA_t - SA_{t-1}.$$

T Statistic = (0.570109) (0.854093) (0.011756) (3.835433) (-1.459688)

4.2.3.1. Test of Regression Coefficients in Partial

4.2.3.1.1. Test of 1st hypothesis: The Association of Earnings with Stock Price

From all regression models that we have conducted which are required to support the 1st hypothesis, levels and changes regressions are performed for each

of the two sample groups by pooling data from 2003 to 2004. Thus it can be concluded as follows:

- The result of equation 3.4 after conducting the data transformation shows that coefficient of earnings in here is positive and its ρ – value is 0.0068. The α with the 5% degree of significant is 0.05, in which it means that ρ – value is lower than α or ρ – value < α. Therefore, we reject H_0 or accept the alternative hypothesis. It means is that the variable of E_t is positively associated with stock price. It is consistent with the prior research, which is done by Bernard and Noel (1991). The positive value indicate that the higher the earning power, the higher association between earnings level and price level for firms with informative change in inventory. Therefore, in this term, we can conclude that the association between earnings level and price level is higher for firms with informative change in inventory.
- The result of equation 3.5 after conducting the data transformation shows that the coefficient of earnings here is negative and its ρ – value is 0.3277. The α with the 5% degree of significant is 0.05, in which it means that ρ – value is higher than α or ρ – value ≥ α. Therefore, we accept H_0 or null hypothesis. It means that the variable of $E_t - E_{t-1}$ is not positively associated with stock price. Therefore, in this case for changes level, it is not consistent with the prior research that was once done by Bernard and Noel (1991). The negative value indicates that the lower the earning power, the lower association between earnings changes level and price changes level for firms with informative change in inventory. Therefore, in this term, we can

conclude that the association between earnings change and price change is lower for firms with informative change in inventory.

- The result of equation 3.6 after conducting the data transformation (performing combined and pooled regression) shows that all coefficients of independent variables in here are positive. Thus, ρ – value of earnings is 0.7115 and ρ – value of DE_t is 0.2947. The α with the 5% degree of significant is 0.05, in which it means that ρ – value for all independent variable here is higher than α or ρ – value $\geq \alpha$. Therefore, we accept H_0 or null hypothesis. It means that the both of variable of E_t and DE_t are not positively associated with stock price. So, in this case for earnings level, it is not consistent with the prior research that was once done by Bernard and Noel (1991). The positive value indicate that the higher the earning power, the higher association between earnings level and price level for firms with informative change in inventory. Therefore, in this term, we can conclude that the association between earnings level and price level is lower for firms with informative change in inventory.
- The result of equation 3.9 after conducting the data transformation (performing combined and pooled regression) showing that coefficient of earnings in here is negative meanwhile coefficient of $DE_t - E_{t-1}$ is positive. Thus, ρ – value of earnings is 0.2081 and ρ – value of $DE_t - E_{t-1}$ is 0.0129. The α with the 5% degree of significant is 0.05, in which it means that ρ – value for earnings here is higher than α or ρ – value $\geq \alpha$. Therefore, we accept H_0 or null hypothesis. It means that the variable of $E_t - E_{t-1}$ is not

positively associated with stock price. So, in this case for earnings level, it is not consistent with the prior research which is ever done by Bernard and Noel (1991). The positive value indicate that the higher the earning power, the higher association between earnings change and price change for firms with informative change in inventory. Meanwhile for $DE_t - E_{t-1}$, its ρ – value < α. Therefore, we can conclude that the association between earnings change and price change is lower for firms with informative change in inventory.

As a result, based on the explanation of results on several tests on regression equation models above, in overall, we can conclude that for 1st hypothesis, we have to accept H_0 or accept null hypothesis. Meaning to say, earnings are not positively associated with stock price. This is based on the analyses by using p-value approach that has been shown above. During year the 2003 up to 2004, we can see that p-value for variable of earnings for each of regression test (from equation 3.5 to equation 3.9) is mostly bigger than $\alpha = 5\%$. And for the coefficient for each of regression test above, for changes level, it shows that earnings have negative sign instead of positive sign on year level.

4.2.3.1.2. Test of 2nd hypothesis: The Association of Increase in Inventory with Stock Price

From all regression models that we have done which are required to support the 2nd hypothesis, the levels and changes regressions are performed for each of the two sample groups by pooling data from 2003 to 2004. Additional

analyses are performed by including inventory valuation method as a control variable. Thus it can be concluded as follows:

- The result of equation 3.10 after conducting the data transformation (using inventory valuation method as a control variable) shows that all coefficients of the independent variables in here are positive. Thus, ρ – value of earnings is 0.1181 and ρ – value of $ME_t - E_{t-1}$ is 0.1371. The α with the 5% degree of significant is 0.05, in which it means that ρ – value for all independent variables here are higher than α or ρ – value $\geq \alpha$. Therefore, we accept H_0 or null hypothesis. It means that there is no negative association between increase in inventory and stock price. So, in this case for earnings level, it is inconsistent with the prior research that was once done by Lev and Thiagarajan (1993) and also not consistent with what was implied by Bernard and Noel (1991). The positive value indicates that the higher the earning power, the higher association between earnings level and price level for firms with informative change in inventory. Therefore, we can conclude that the conclusion is changed by incorporating inventory method as a control variable.
- The result of equation 3.11 after conducting the data transformation (using inventory valuation method as a control variable) shows that all coefficients of independent variables in here are negative. Thus, ρ – value of earnings is 0.5495 and ρ – value of $ME_t - E_{t-1}$ is 0.7319. The α with the 5% degree of significant is 0.05, in which it means that ρ – value for all independent variables here are higher than α or ρ – value $\geq \alpha$. Therefore, we accept H_0 or

null hypothesis. The meaning of this is that there is no negative association between increase in inventory and stock price. So, in this case for earnings change, it is inconsistent with the prior research which is ever done by Lev and Thiagarajan (1993) and also inconsistent with what was implied by Bernard and Noel (1991). The negative value indicates that the lower the earning power, the lower association between earnings change and price change for firms with informative change in inventory. Therefore, we can conclude that the conclusion is changed by incorporating inventory method as a control variable.

As a result, based on the explanation of results on several tests on regression equation models above, in overall, we can conclude that for 2nd hypothesis, we have to accept H_0 or accept null hypothesis. Meaning to say, there is no negative association between increase in inventory and stock price. This is based on analyses by using p-value approach that has shown above. During the year 2003 up to 2004, we can see that p-value for variable of earnings for each of regression test (from equation 3.10 to equation 3.11) is higher than $\alpha = 5\%$. And for the coefficient for each of regression test above, for changes level, it shows that earnings have negative sign instead of positive sign on year level.

4.2.3.1.3. Test of 3rd hypothesis: Association on Earnings between Increase in Inventory and Stock Price.

From all regression models that we have done which are required to support the 3rd hypothesis, levels and changes regressions are performed for each

of the two sample groups by pooling data from 2003 to 2004. Additional analyses are also performed by including inventory valuation method as a control variable and also performing additional analysis by including decomposing earnings into their components. Thus it can be concluded as follows:

- The result of equation 3.12 after do data transformation, showing that both of coefficients of earnings and DE_t in here are positive. Meanwhile, coefficient of $ME_t - E_{t-1}$ is negative. Thus, ρ – value of earnings is 0.5361, ρ – value of DE_t is 0.8059 and ρ – value of $ME_t - E_{t-1}$ is 0.2741. The α with the 5% degree of significant is 0.05, in which it means that ρ – value for all independent variables here are bigger than α or ρ – value $\geq \alpha$. Therefore, we accept H_0 or null hypothesis. It means that there is no positive association on earnings between increase in inventory and stock price. So, in this case for earnings level, it is inconsistent with the prior research that was once done by Jiambalvo, Noreen and Shelvin (1997). The positive value indicate that the higher the earning power, the higher association between earnings level and price level for firms with informative change in inventory. Therefore, we can conclude that the conclusion is changed by incorporating inventory method as a control variable.
- The result of equation 3.13 after conducting the data transformation shows that both of coefficients of earnings and $ME_t - E_{t-1}$ in here are negative. Meanwhile, coefficient of $DE_t - E_{t-1}$ is positive. Thus, ρ – value of earnings is 0.1922, ρ – value of $DE_t - E_{t-1}$ is 0.0330 and ρ – value of $ME_t - E_{t-1}$ is 0.1078. The α with the 5% degree of significant is 0.05, in which it means

that ρ – value for both earnings and inventory method here are higher than α or ρ – value ≥ α. Therefore, we accept H_0 or null hypothesis. It means that there is no positive association on earnings between increase in inventory and stock price. So, in this case for earnings change, it is inconsistent with the prior research that was once done by Jiambalvo, Noreen and Shelvin (1997). Meanwhile, for variable of $DE_t - E_{t-1}$, its ρ – value < α. The positive value indicates that the higher the earning power, the higher association between earnings change and price change for firms with informative change in inventory. Therefore, we can conclude that the conclusion is changed by incorporating inventory method as a control variable.

- The result of equation 3.15 after conducting the data transformation shows that coefficient of Gross Profit in here is positive; meanwhile for Selling and Administrative Expense, it is negative. Thus, ρ – value of Gross Profit is 0.0000, and ρ – value of Selling and Administrative Expense is 0.0872. The α with the 5% degree of significant is 0.05, in which it means that ρ – value for earnings here is lower than α or ρ – value < α. Therefore, we reject H_0 or accept alternative hypothesis. It means that there is positive association on earnings between increase in inventory and stock price in relationship with Gross Profit. So, in this term for earnings level, it is consistent with the prior research which is ever done by Jiambalvo, Noreen and Shelvin (1997). Meanwhile for variable Selling and Administrative Expense, its ρ – value ≥ α. It means that there is no positive association on earnings between increase in inventory and stock price in relationship with Selling and

Administrative Expense. Thus, the positive value indicates that the higher the earning power, the higher association between earnings level and price level for firms with informative change in inventory.

- The result of equation 3.16 after conducting the data transformation shows that coefficients of Gross Profit, Selling and Administrative Expense, and DGP_t in here are positive, whereas for DSA_t is negative. Thus, ρ – value of Gross Profit is 0.0034, ρ – value of Selling and Administrative Expense is 0.6195, ρ – value of DGP_t is 0.0206, and ρ – value of DSA_t is 0.0031. The α with the 5% degree of significant is 0.05, in which it means that ρ – value for Gross Profit, DGP_t and DSA_t in here are lower than α or ρ – value $< \alpha$. Therefore, we reject H_0 or accept alternative hypothesis. It means that there is positive association on earnings between increase in inventory and stock price in relationship with Gross Profit. So, in this case for earnings level, it is consistent with the prior research which is ever done by Jiambalvo, Noreen and Shelvin (1997). Meanwhile for variable SA_t, its ρ – value $\geq \alpha$. It means that there is no positive association on earnings between increase in inventory and stock price in relationship with Selling and Administrative Expense. Thus, the positive value indicates that the higher the earning power, the higher association between earnings level and price level for firms with informative change in inventory.
- The result of equation 3.17 after conducting the data transformation shows that the coefficient of all independent variables here are positive. Thus, ρ – value of Gross Profit is 0.2975, and ρ – value of Selling and

Administrative Expense is 0.2353. The α with the 5% degree of significant is 0.05, in which it means that ρ – value for all independent variables here is higher than α or ρ – value ≥ α. Therefore, we accept H_0 or null hypothesis. It means that there is no positive association on earnings between increase in inventory and stock price. So, in this case for earnings changes, it is inconsistent with the prior research that was once done by Jiambalvo, Noreen and Shelvin (1997). Thus, the positive value indicates that the higher the earning power, the higher association between earnings change and price change for firms with informative change in inventory.

- The result of equation 3.18 after conducting the data transformation shows that coefficients of Gross Profit, Selling and Administrative Expense, and $DGP_t - GP_{t-1}$ in here are positive, meanwhile for $DSA_t - SA_{t-1}$, it is negative. Thus, ρ – value of Gross Profit is 0.3941, ρ – value of Selling and Administrative Expense is 0.9906, ρ – value of $DGP_t - GP_{t-1}$ is 0.0002, and ρ – value of $DSA_t - SA_{t-1}$ is 0.1460. The α with the 5% degree of significant is 0.05, in which it means that ρ – value for Gross Profit, Selling and Administrative Expense in here are higher than α or ρ – value ≥ α. Therefore, we accept H_0 or null hypothesis. It means that there is no positive association on earnings between increase in inventory and stock price. So, in this case for earnings changes, it is inconsistent with the prior research that was once done by Jiambalvo, Noreen and Shelvin (1997). Meanwhile, only variable $DGP_t - GP_{t-1}$ that has ρ – value < α. Thus, the positive value indicate that the higher the earning power, the higher association between

earnings change and price change for firms with informative change in inventory.

As a result, based on the explanation of results on several tests on regression equation models above, in overall, we can conclude that for 3rd hypothesis, we have to accept H_0 or accept null hypothesis. Meaning to say, there is no positive association on earnings between increase in inventory and stock price. This is based on the analyses by using p-value approach that has shown above. During the year 2003 up to 2004, we can see that p-value for variable of earnings for each of regression test (from equation 3.12 to equation 3.18) is mostly higher than $\alpha = 5\%$. Although for equation 3.13 of variable of earnings have negative sign instead of it has positive sign on the rest.

4.2.4. Interpretation on the Result of the Calculation

4.2.4.1. Determination Coefficients (Adjusted R^2)

The result of the analysis shows that the value of Adjusted R^2 (determination coefficients), for each equation regression models are explained as follows:

1. In Table 4.45 (See Appendix 7), its adjusted R^2 is 0.04189. It means that 4.19% of the total variation on stock price can be explained by E_t (Earnings Levels) after adjusting for the number of explanatory variables and sample size. Meanwhile, the other 95.81% is explained by the other variables that are not included in this research.

2. In Table 4.46 (See Appendix 7), its adjusted R^2 is -0.001857. It means that 0.186% of the total variation on stock price can be explained by $E_t - E_{t-1}$ (Earnings changes) after adjusting for the number of explanatory variables and sample size. Meanwhile, the other 99.814% is explained with the other variables that are not included in this research. Adjusted R^2 here is in negative sign, because $k > 1$.
3. In Table 4.47 (See Appendix 7), its adjusted R^2 is 0.023008. It means that 2.3% of the total variation on stock price can be explained by E_t (Earnings level) and DE_t (indicator variable for both sample groups) after adjusting for the number of explanatory variables and sample size. Meanwhile, the other 97.7% is explained by the other variables that are not included in this research.
4. In Table 4.48 (See Appendix 7), its adjusted R^2 is 0.01325. Means 1.325% of total variation on stock price can be explained by $E_t - E_{t-1}$ (Earnings changes) and $DEt - DE_{t-1}$ (indicator variable for both sample groups) after adjusting for the number of explanatory variables and sample size. Meanwhile, the other 98.675% is explained by the other variables that are not included in this research.
5. In Table 4.49 (See Appendix 7), its adjusted R^2 is 0.191423. It means that 19.1423% of total variation on stock price can be explained by E_t (Earnings level) and $ME_t - E_{t-1}$ (indicator variable for inventory valuation method) after adjusting for the number of explanatory variables and

sample size. Meanwhile, the other 80.8577% is explained by the other variables that are not included in this research.

6. In Table 4.50 (See Appendix 7), its adjusted R^2 is -0.005310. It means that 0.531% of total variation on stock price can be explained by $E_t - E_{t-1}$ (Earnings changes) and $ME_t - E_{t-1}$ (indicator variable for inventory valuation method) after adjusting for the number of explanatory variables and sample size. Meanwhile, the other 99.469% is explained by the other variables that are not included in this research. Adjusted R^2 here is in negative sign, because $k > 1$.
7. In Table 4.51 (See Appendix 7), its adjusted R^2 is -0.001950. It means 0.195% of total variation on stock price can be explained by E_t (Earnings level), DE_t (indicator variable for both sample groups), and $ME_t - E_{t-1}$ (indicator variable for inventory valuation method) after adjusting for the number of explanatory variables and sample size. Meanwhile, the other 99.805% is explained by the other variables that are not included in this research. Adjusted R^2 here is in negative sign, because $k > 1$.
8. In Table 4.52 (See Appendix 7), its adjusted R^2 is 0.017988. It means that 1.8% of total variation on stock price can be explained by $E_t - E_{t-1}$ (Earnings changes), $DE_t - E_{t-1}$ (indicator variable for both sample groups), and $ME_t - E_{t-1}$ (indicator variable for inventory valuation method) after adjusting for the number of explanatory variables and sample size. Meanwhile, the other 98.2% is explained by the other variables that are not included in this research.

9. In Table 4.53 (See Appendix 7), its adjusted R^2 is 0.43874. It means that 43.874% of total variation on stock price can be explained by GP_t (Gross Profit levels), and SA_t (Selling and Administrative Expense Levels) after adjusting for the number of explanatory variables and sample size. Meanwhile, the other 56.126% is explained by the other variables that are not included in this research.
10. In Table 4.54 (See Appendix 7), its adjusted R^2 is 0.510563. It means that 51.056% of the total variation on stock price can be explained by GP_t (Gross Profit Levels), and SA_t (Selling and Administrative Expense Levels) after adjusting for the number of explanatory variables and sample size. Meanwhile, the other 48.944% is explained by the other variables that are not included in this research.
11. In Table 4.55 (See Appendix 7), its adjusted R^2 is 0.001958. It means that 0.196% of total variation on stock price can be explained by $GP_t - GP_{t-1}$ (Gross Profit changes), and $SA_t - SA_{t-1}$ (Selling and Administrative Expense changes) after adjusting for the number of explanatory variables and sample size. Meanwhile, the other 99.804% is explained by the other variables that are not included in this research.
12. In Table 4.56 (See Appendix 7), its adjusted R^2 is 0.03593. It means that 3.6% of total variation on stock price can be explained by $GP_t - GP_{t-1}$ (Gross Profit changes), $SA_t - SA_{t-1}$ (Selling and Administrative Expense changes), $DGP_t - GP_{t-1}$ (indicator variable for both sample groups), and $DSA_t - SA_{t-1}$ (indicator variable for both sample groups) after adjusting

for the number of explanatory variables and sample size. Meanwhile, the other 96.4% is explained by the other variables that are not included in this research.

4.2.4.2. Determination Coefficients (R^2)

The result of the analysis shows that the value of R^2 (determination coefficients), for each equation regression models are explained as follows:

1. In Table 4.45 (See Appendix 7), its R^2 is 0.046285. It means that 4.63% of the total variation on stock price can be explained by E_t (Earnings Levels). Meanwhile, the other 95.81% is explained by the other variables that are not included in this research.
2. In Table 4.46 (See Appendix 7), its R^2 is 0.00328. It means that 0.33% of the total variation on stock price can be explained by $E_t - E_{t-1}$ (Earnings changes). Meanwhile, the other 99.67% is explained by the other variables that are not included in this research.
3. In Table 4.47 (See Appendix 7), its R^2 is 0.032633. It means that 3.26% of the total variation on stock price can be explained by E_t (Earnings level) and DE_t (indicator variable for both sample groups). Meanwhile, the other 96.74% is explained by the other variables that are not included in this research.
4. In Table 4.48 (See Appendix 7), its R^2 is 0.023371. It means that 2.33% of the total variation on stock price can be explained by $E_t - E_{t-1}$ (Earnings changes) and $DE_t - DE_{t-1}$ (indicator variable for both sample groups).

Meanwhile, the other 97.67% is explained by the other variables that are not included in this research.

5. In Table 4.49 (See Appendix 7), its R^2 is 0.199312. It means that 19.93% of the total variation on stock price can be explained by E_t (Earnings level) and $ME_t - E_{t-1}$ (indicator variable for inventory valuation method). Meanwhile, the other 80.07% is explained by the other variables that are not included in this research.
6. In Table 4.50 (See Appendix 7), its R^2 is 0.005001. It means that 0.5% of the total variation on stock price can be explained by $E_t - E_{t-1}$ (Earnings changes) and $ME_t - E_{t-1}$ (indicator variable for inventory valuation method). Meanwhile, the other 99.95% is explained by the other variables that are not included in this research.
7. In Table 4.51 (See Appendix 7), its R^2 is 0.012642. It means that 1.264% of the total variation on stock price can be explained by E_t (Earnings level), DE_t (indicator variable for both sample groups), and $ME_t - E_{t-1}$ (indicator variable for inventory valuation method). Meanwhile, the other 98.736% is explained by the other variables that are not included in this research.
8. In Table 4.52 (See Appendix 7), its R^2 is 0.033096. It means that 3.3096% of the total variation on stock price can be explained by $E_t - E_{t-1}$ (Earnings changes), $DE_t - E_{t-1}$ (indicator variable for both sample groups), and $ME_t - E_{t-1}$ (indicator variable for inventory valuation method).

Meanwhile, the other 96.6904% is explained with the other variables that are not included in this research.

9. In Table 4.53 (See Appendix 7), its R^2 is 0.444556. It means that 44.456% of the total variation on stock price can be explained by GP_t (Gross Profit levels), and SA_t (Selling and Administrative Expense Levels). Meanwhile, the other 55.544% is explained by the other variables that are not included in this research.
10. In Table 4.54 (See Appendix 7), its R^2 is 0.520706. It means that 52.07% of the total variation on stock price can be explained by GP_t (Gross Profit Levels), and SA_t (Selling and Administrative Expense Levels). Meanwhile, the other 47.93% is explained by the other variables that are not included in this research.
11. In Table 4.55 (See Appendix 7), its R^2 is 0.012194. It means that 1.2194% of the total variation on stock price can be explained by $GP_t - GP_{t-1}$ (Gross Profit changes), and $SA_t - SA_{t-1}$ (Selling and Administrative Expense changes). Meanwhile, the other 98.7806% is explained by the other variables that are not included in this research.
12. In Table 4.56 (See Appendix 7), its R^2 is 0.055808. It means that 5.58% of the total variation on stock price can be explained by $GP_t - GP_{t-1}$ (Gross Profit changes), $SA_t - SA_{t-1}$ (Selling and Administrative Expense changes), $DGP_t - GP_{t-1}$ (indicator variable for both sample groups), and $DSA_t - SA_{t-1}$ (indicator variable for both sample groups). Meanwhile, the

other 94.42% is explained with the other variables that are not included in this research.

4.2.4.3. Interpretation on the Analysis Result of the Regression.

The regression equation that can be arranged based on the result of the calculation for each equation regression models are explained as follows:

$P_t = -0.0515 + 0.904773\ E_t$.

From the above equation, we can explain that:

a. The value Constant (C) = -0.0515. The sample Y intercepts β_0, computed as -0.0515, and estimates the expected amount of Stock Price if Earnings is equal to zero (X 1 = 0).

b. The value of coefficient $\beta_1 = 0.904773$. It is stated that every increase of Rp 1 in E_t (X_1) will also increase the Stock Price (Y) for 0.904773 with the assumption that X_2 is constant. Therefore, the influence of E_t to the Stock Price is positive.

$P_t - P_{t-1} = -0.002 - 0.01766\ E_t - E_{t-1}$.

From the above equation, we can explain that:

a. The value Constant (C) = -0.002. The changes in the Stock Price (Y) will be 0.002 if the independent variable of earnings level which changes the Stock Price is equal to zero ($X_1 = 0$).

b. The value of coefficient $\beta_1 = -0.01766$. It is stated that every increase of Rp 1 in $E_t - E_{t-1}$ (X_1), while other independent variables are constant, the estimated average amount of stock price is decreased by 0.01766.

$P_t = -0.000347 + 0.17563\ E_t + 0.511803\ DE_t$.

From the above equation, we can explain that:

a. The value Constant (C) = -0.000347. The changes in the Stock Price (Y) will be 0.000347 if all the independent variables which change the Stock Price are equal to zero (X_1, $X_2 = 0$).

b. The value of coefficient $\beta_1 = 0.175630$. It is stated that every increase of Rp 1 in E_t (X_1), while DE_t (X_2) is constant, the estimated average amount of stock price is increased by 0.175630.

c. The value of coefficient $\beta_2 = 0.511803$. It is stated that every increase of Rp 1 in DE_t (X_2), while E_t (X_1) is constant, the estimated average amount of stock price is increased by 0.511803.

$P_t - P_{t-1} = 0.031427 - 0.022607\ E_t - E_{t-1} + 0.318501\ DE_t - E_{t-1}$.

From the above equation, we can explain that:

a. The value Constant (C) = 0.031427. The changes in the Stock Price (Y) will be 0.031427 if all the independent variables which change the Stock Price are equal to zero (X_1, $X_2 = 0$).

b. The value of coefficient $\beta_1 = -0.022607$. It is stated that every increase of Rp 1 in $E_t - E_{t-1}$ (X_1), while $DE_t - E_{t-1}$ (X_2) is constant, the estimated average amount of stock price is decreased by 0.022607.

c. The value of coefficient $\beta_2 = 0.318501$. It is stated that every increase of Rp 1 in $DE_t - E_{t-1}$ (X_2), while $E_t - E_{t-1}$ (X_1) is constant, the estimated average amount of stock price is increased by 0.318501.

$P_t = -0.002134 + 1.796325\ E_t + 4.561975\ ME_t - E_{t-1}$.

From the above equation, we can explain that:

a. The value Constant (C) = -0.002134. The changes in the Stock Price (Y) will be 0.002134 if all the independent variables which change the Stock Price are equal to zero (X_1, $X_2 = 0$).

b. The value of coefficient $\beta_1 = 1.796325$. It is stated that every increase of Rp 1 in E_t (X_1), while $ME_t - E_{t-1}$ (X_2) is constant, the estimated average amount of stock price is increased by 1.796325.

c. The value of coefficient $\beta_2 = 4.561975$. It is stated that every increase of Rp 1 in $ME_t - E_{t-1}$ (X_2), while E_t (X_1) is constant, the estimated average amount of stock price is increased by 4.561975.

$P_t - P_{t-1} = -0.002176 - 0.013881\ E_t - E_{t-1} - 0.094117\ ME_t - E_{t-1}$.

From the above equation, we can explain that:

a. The value Constant (C) = -0.002176. The changes in the Stock Price (Y) will be 0.002176 if all the independent variables which change the Stock Price are equal to zero (X_1, $X_2 = 0$).

b. The value of coefficient $\beta_1 = -0.013881$. It is stated that every increase of Rp 1 in $E_t - E_{t-1}$ (X_1), while $ME_t - E_{t-1}$ (X_2) is constant, the estimated average amount of stock price is decreased by 0.013881.

c. The value of coefficient $\beta_2 = -0.094117$. It is stated that every increase of Rp 1 in $ME_t - E_{t-1}$ (X_2), while $E_t - E_{t-1}$ (X_1) is constant, the estimated average amount of stock price is decreased by 0.094117.

$P_t = 0.858662 + 0.271604\ E_t - 0.496965\ ME_t - E_{t-1} + 0.104203\ DE_t$.

From the above equation, we can explain that:

a. The value Constant (C) = 0.858662. The changes in the Stock Price (Y) will be 0.858662 if all the independent variables which change the Stock Price are equal to zero (X_1, X_2, $X_3 = 0$).

b. The value of coefficient $\beta_1 = 0.271604$. It is stated that every increase of Rp 1 in E_t (X_1), while $ME_t - E_{t-1}$ (X_2) and DE_t (X_3) are constant, the estimated average amount of stock price is increased by 0.271604.

c. The value of coefficient $\beta_2 = -0.496965$. It is stated that every increase of Rp 1 in $ME_t - E_{t-1}$ (X_2), while E_t (X_1) and DE_t (X_3) are constant, the estimated average amount of stock price is decreased by 0.496965.

d. The value of coefficient $\beta_3 = 0.104203$. It is stated that every increase of Rp 1 in DE_t (X_3), while E_t (X_1) and $ME_t - E_{t-1}$ (X_2) are constant, the estimated average amount of stock price is increased by 0.104203.

$P_t - P_{t-1} = 0.028515 - 0.022176\ E_t - E_{t-1} - 0.465998\ ME_t - E_{t-1}$
$+ 0.4156\ DE_t - E_{t-1}$

From the above equation, we can explain that:

a. The value Constant (C) = 0.028515. The changes in the Stock Price (Y) will be 0.028515 if all the independent variables which change the Stock Price are equal to zero (X_1, X_2, $X_3 = 0$).

b. The value of coefficient $\beta_1 = -0.022176$. It is stated that every increase of Rp 1 in $E_t - E_{t-1}$ (X_1), while $ME_t - E_{t-1}$ (X_2) and $DE_t - E_{t-1}$ (X_3) are

constant, the estimated average amount of stock price is decreased by 0.022176.

c. The value of coefficient $\beta_2 = -0.465998$. It is stated that every increase of Rp 1 in $ME_t - E_{t-1}$ (X_2), while $E_t - E_{t-1}$ (X_1) and $DE_t - E_{t-1}$ (X_3) are constant, the estimated average amount of stock price is decreased by 0.465998.

d. The value of coefficient $\beta_3 = 0.4156$. It is stated that every increase of Rp 1 in $DE_t - E_{t-1}$ (X_3), while $E_t - E_{t-1}$ (X_1) and $ME_t - E_{t-1}$ (X_2) are constant, the estimated average amount of stock price is increased by 0.4156.

$P_t = 0.402955 + 1.267113\ GP_t - 0.610769\ SA_t$.

From the above equation, we can explain that:

a. The value Constant (C) = 0.402955. The changes in the Stock Price (Y) will be 0.402955 if all the independent variables which change the Stock Price are equal to zero ($X_1, X_2 = 0$).

b. The value of coefficient $\beta_1 = 1.267113$. It is stated that every increase of Rp 1 in GP_t (X_1), while SA_t (X_2) is constant, the estimated average amount of stock price is increased by 1.267113.

c. The value of coefficient $\beta_2 = -0.610769$. It is stated that every increase of Rp 1 in SA_t (X_2), while GP_t (X_1) is constant, the estimated average amount of stock price is decreased by 0.610769.

$P_t = 0.005646 + 0.783735\ GP_t + 0.179462\ SA_t + 1.171764\ DGP_t - 1.701002\ DSA_t$.

From the above equation, we can explain that:

a. The value Constant (C) = 0.005646. The changes in the Stock Price (Y) will be 0.005646 if all the independent variables which change the Stock Price are equal to zero (X_1, X_2, X_3, $X_4 = 0$).

b. The value of coefficient $\beta_1 = 0.783735$. It is stated that every increase of Rp 1 in GP_t (X_1), while SA_t (X_2), DGP_t (X_3) and DSA_t (X_4) are constant, the estimated average amount of stock price is increased by 0.783735.

c. The value of coefficient $\beta_2 = 0.179462$. It is stated that every increase of Rp 1 in SA_t (X_2), while GP_t (X_1), DGP_t (X_3) and DSA_t (X_4) are constant, the estimated average amount of stock price is increased by 0.179462.

d. The value of coefficient $\beta_3 = 1.171764$. It is stated that every increase of Rp 1 in DGP_t (X_3), while GP_t (X_1), SA_t (X_2), and DSA_t (X_4) are constant, the estimated average amount of stock price is increased by 1.171764.

e. The value of coefficient $\beta_4 = -1.701002$. It is stated that every increase of Rp 1 in and DSA_t (X_4), while GP_t (X_1), SA_t (X_2), and DGP_t (X_3) are constant, the estimated average amount of stock price is decreased by 1.701002.

$P_t - P_{t-1} = 0.002348 + 0.105494\ GP_t - GP_{t-1} + 0.163739\ SA_t - SA_{t-1}$.

a. The value Constant (C) = 0.002348. The changes in the Stock Price (Y) will be 0.002348 if all the independent variables which change the Stock Price are equal to zero (X_1, $X_2 = 0$).

b. The value of coefficient $\beta_1 = 0.105494$. It is stated that every increase of Rp 1 in $GP_t - GP_{t-1}$ (X_1), while $SA_t - SA_{t-1}$ is constant, the estimated average amount of stock price is increased by 0.105494.

c. The value of coefficient $\beta_2 = 0.163739$. It is stated that every increase of Rp 1 in $SA_t - SA_{t-1}$ (X_2), while $GP_t - GP_{t-1}$ (X_1) is constant, the estimated average amount of stock price is increased by 0.163739.

$$P_t - P_{t-1} = 0.017776 + 0.087057\ GP_t - GP_{t-1} + 0.003156\ SA_t - SA_{t-1} + 0.602228\ DGP_t - GP_{t-1} - 0.946918\ DSA_t - SA_{t-1}.$$

From the above equation, we can explain that:

a. The value Constant (C) = 0.017776. The changes in the Stock Price (Y) will be 0.017776 if all the independent variables which change the Stock Price are equal to zero ($X_1, X_2, X_3, X_4 = 0$).

b. The value of coefficient $\beta_1 = 0.087057$. It is stated that every increase of Rp 1 in $GP_t - GP_{t-1}$ (X_1), while $SA_t - SA_{t-1}$ (X_2), $DGP_t - GP_{t-1}$ (X_3) and $DSA_t - SA_{t-1}$ (X_4) are constant, the estimated average amount of stock price is increased by 0.087057.

c. The value of coefficient $\beta_2 = 0.003156$. It is stated that every increase of Rp 1 in $SA_t - SA_{t-1}$ (X_2), while $GP_t - GP_{t-1}$ (X_1), $DGP_t - GP_{t-1}$ (X_3) and $DSA_t - SA_{t-1}$ (X_4) are constant, the estimated average amount of stock price is increased by 0.003156.

d. The value of coefficient $\beta_3 = 0.602228$. It is stated that every increase of Rp 1 in $DGP_t - GP_{t-1}$ (X_3), while $GP_t - GP_{t-1}$ (X_1), $SA_t - SA_{t-1}$ (X_2), and

$DSA_t - SA_{t-1}$ (X_4) are constant, the estimated average amount of stock price is increased by 0.602228.

e. The value of coefficient $\beta_4 = -0.946918$. It is stated that every increase of Rp 1 in and $DSA_t - SA_{t-1}$ (X_4), while $GP_t - GP_{t-1}$ (X_1), $SA_t - SA_{t-1}$ (X_2), and $DGP_t - GP_{t-1}$ (X_3) are constant, the estimated average amount of stock price is decreased by 0.946918.

CHAPTER V

CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion.

Based on the analysis result in the previous chapter, we can take some conclusions. Those are as follows:

1. Compared to the previous study, based on what we have found within this study, the findings are: 1st hypothesis is in not in line with the previous study that had been done by Bernard and Noel (1992) and also with 2nd hypothesis, however the researcher found that her hypotheses results still in line with previous study that have been done by Jiambalvo, Noreen, and Shelvin (1997). Thus, the increase in inventory seems to have big association with stock price. And within this study, after several computation and analyses, the researcher found that earnings do not have any effect both with increase in inventory and stock prices and does not impact on the relationship between increase in inventory and stock prices. Therefore, it is true that informativeness of change in inventory is affecting stock prices.
2. The result of the analyses consistently show that the association between stock price and earnings, both in level and changes form, is lower for firms with the informativeness of change in inventory. The implication is that investors and analysts do not have to rely more heavily on earnings figures when analyzing firms with informativeness of change in inventory.

3. Results in this study are also showing that inventory methods are insignificant in some analyses and significant in other analyses. Thus, this variable is not consistent in explaining the variation in stock price.
4. The association between gross profit and stock price is higher for levels form. The implication of this study, therefore, is the importance of knowledge on a firm's inventory planning (i.e., the association between percentage change in cost of goods sold and lag one percentage of production added to inventory) for valuation purposes.
5. The contributions of change in inventory, in explaining the change on stock price, are weak and have a small relationship (See Appendix 7). The low Adjusted R^2 gives a clue that the movements of changes on stock price are characteristic random that can not be decided or fully influenced only by the increase on inventory. In this case, the stock price changes are more influenced by the other outside factors of changes in inventory.

5.2. Limitations and Recommendation.

1. This research is only using 2 (two) years sample observation. Therefore, in order to get better result, it is recommended for other researchers to use at least 14 years sample observation because this study is using firms classification analysis in the short-run with three consecutives years.
2. In this research, the researcher analyzes the companies' performance by using the financial statements of the companies. The financial statements which are used in this research are the annual financial statements. It is

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APPENDICES

APPENDIX 1
LISTS OF FIRST COMPANIES' SAMPLE
COMPANIES THAT BECOME
THE SAMPLE OF RESEARCH

Table A

THE COMPANIES' STOCK PRICES LIST

FIRST SAMPLE OF 153 COMPANIES IN THE RESEARCH

No	Firms	Closing Price per Share (PRICE)		
		2002	2003	2004
1	PT Ades Alfindo Putrasetia Tbk	1150	550	975
2	PT Aqua Golden Mississippi Tbk	38000	40000	47550
3	PT Cahaya Kalbar Tbk	190	220	255
4	PT Davomas Abadi Tbk	300	100	490
5	PT Delta Djakarta Tbk	9200	9000	10500
6	PT Fast Food Indonesia Tbk	0	0	0
7	PT Indofood Sukses Makmur Tbk	825	600	775
8	PT Mayora Indah Tbk	420	365	975
9	PT Multi Bintang Indonesia Tbk	34250	30000	40000
10	PT Pioneerindo Gourmet International (d/h Putra Sejahtera Pioneerindo (CFC)) Tbk	0	0	0
11	PT Prasidha Aneka Niaga Tbk	125	125	125
12	PT Sari Husada Tbk	10250	10000	17800
13	PT Sekar Laut Tbk	400	275	500
14	PT Siantar Top Tbk	270	215	185
15	PT Sierad Produce Tbk	45	20	25
16	PT Sinar Mas Agro Resources and Technology Corporation (SMART) Tbk	925	1125	2900
17	PT Suba Indah Tbk	40	25	125
18	PT Tiga Pilar Sejahtera Tbk (Asia Intiselera)	165	330	195
19	PT Tunas Baru Lampung Tbk	290	140	170
20	PT Ultra Jaya Milk Industry and Trading Company Tbk	750	500	295
21	PT BAT Indonesia Tbk	7900	9150	9100
22	PT Gudang Garam Tbk	10950	7400	13000
23	PT Hanjaya Mandala Sampoerna Tbk	4575	2900	4500
24	PT Argo Pantes Tbk	700	700	1275
25	PT Century Textile Industry (Centex) Tbk	0	0	0
26	PT Eratex Djaja Limited Tbk	460	200	200
27	PT Panasia Filament Inti Tbk	195	70	45
28	PT Panasia Indosyntec Tbk	0	0	0
29	PT Roda Vivatex Tbk	1125	1000	850
30	PT Sunson Textile Manufacture Tbk	330	175	115
31	PT Teijin Indonesia Fiber Corporation (Tifico) Tbk	300	165	240
32	PT Textile Manufacturing Company Jaya (Texmaco Jaya) Tbk	0	0	0
33	PT APAC Citra Centertex Tbk	210	85	170
34	PT Daeyu Orchid Indonesia Tbk	100	60	80
35	PT Ever Shine Textile Industry Tbk	335	100	125
36	PT Fortune Mate Indonesia Tbk	0	0	0
37	PT Great River International Tbk	0	0	0
38	PT Hanson Industri Utama Tbk	0	0	0
39	PT Indorama Syntetics Tbk	725	420	455
40	PT Karwell Indonesia Tbk	455	350	420
41	PT Kasogi International Tbk	0	0	0
42	PT Pan Brothers Tex Tbk	0	0	0
43	PT Primarindo Asia Infrastructure Tbk	0	0	0
44	PT Ricky Putra Globalindo Tbk	160	45	320

45	PT Sarasa Nugraha Tbk	100	40	35
46	PT Sepatu Bata Tbk	16500	14000	15000
47	PT Surya Intrindo Makmur Tbk	1000	375	200
48	PT Barito Pacific Timber Tbk	0	0	0
49	PT Daya Sakti Unggul Corporation Tbk	95	75	130
50	PT Sumalindo Lestari Jaya Tbk	105	65	110
51	PT Surya Dumai Industri Tbk	500	445	385
52	PT Tirta Mahakam Plywood Industry Tbk	150	95	110
53	PT Fajar Surya Wisesa Tbk	440	340	750
54	PT Indah Kiat Pulp & Paper Corporation Tbk	230	205	775
55	PT Pabrik Kertas Tjiwi Kimia Tbk	195	215	775
56	PT Suparma Tbk	85	75	190
57	PT Surabaya Agung Industry Pulp Tbk	75	65	65
58	PT Aneka Kimia Raya Tbk	0	0	0
59	PT Budi Acid Jaya Tbk	135	90	100
60	PT Colorpak Indonesia Tbk	450	365	480
61	PT Eterindo Wahanatama Tbk	75	70	195
62	PT Lautan Luas Tbk	0	0	0
63	PT Polysindo Eka Perkasa Tbk	35	15	60
64	PT Sorini Corporation Tbk	475	390	750
65	PT Unggul Indah Cahaya Tbk	1300	1100	2075
66	PT Duta Pertiwi Nusantara Tbk	415	200	220
67	PT Ekadharma Tape Industries Tbk	550	490	165
68	PT Intan Wijaya International Tbk	495	270	305
69	PT Resource Alam Indonesia Tbk (Kurnia Kapuas Utama Glue Industries) Tbk	240	90	160
70	PT Argha Karya Prima Industry Tbk	220	230	750
71	PT Asahimas Flat Glass Co Ltd Tbk	1225	1150	2300
72	PT Asiaplast Industries Tbk	45	20	35
73	PT Berlina Co Ltd Tbk	1500	1400	1275
74	PT Dynaplast Tbk	1200	975	1725
75	PT Fatrapolindo Nusa Industri Tbk	0	0	0
76	PT Inti Indah Karya Plasindo Tbk	0	0	0
77	PT Kageo Igar Jaya Tbk (Igarjaya)	80	80	120
78	PT Langgeng Makmur Plastik Industry Ltd Tbk	80	35	55
79	PT Lapindo International Tbk	550	420	525
80	PT Palm Asia Corpore Tbk (PT Plaspak Prima Industri Tbk)	0	0	0
81	PT Siwani Makmur Tbk	0	0	0
82	PT Summiplast Interbenua Tbk	210	170	150
83	PT Trias Sentosa Tbk	110	165	225
84	PT Wahana Jaya Perkasa Tbk	0	0	0
85	PT Indocement Tunggal Perkasa Tbk	850	825	1900
86	PT Semen Cibinong Tbk	320	150	375
87	PT Semen Gresik (Persero) Tbk	8450	7350	9950
88	PT Alakasa Industrindo Tbk	0	0	0
89	PT Alumindo Light Metal Industry Tbk	625	145	235
90	PT Betonjaya Manunggal Tbk	140	125	200
91	PT Citra Tubindo Tbk	7900	8050	8000
92	PT Indal Aluminium Industry Tbk	310	115	150
93	PT Jakarta Kyoei Steel Works Ltd Tbk	35	20	125
94	PT Jaya Pari Steel Tbk	100	140	385
95	PT Lion Mesh Prima Tbk	525	350	925
96	PT Lion Metal Works Tbk	725	850	925
97	PT Pelangi Indah Canindo Tbk	175	60	160
98	PT Tembaga Mulia Semanan Tbk	2750	2600	2300

99	PT Tira Austenite Tbk	0	0	0
100	PT Kedaung Indah Can Tbk	350	370	150
101	PT Kedawung Setia Industrial Tbk	285	145	150
102	PT Arwana Citra Mulia Tbk	105	95	295
103	PT Intikeramik Alamasri Industry Tbk	125	80	135
104	PT Keramika Indonesia Assosiasi Tbk	0	0	0
105	PT Mulia Industrindo Tbk	155	110	250
106	PT Surya Toto Indonesia Tbk	5500	5500	4450
107	PT Komatsu Indonesia Tbk	0	0	0
108	PT Texmaco Perkasa Engineering Tbk	0	0	0
109	PT GL Kabel Indonesia Tbk	80	50	80
110	PT Jembo Cable Company Tbk	600	775	235
111	PT Kabelindo Murni Tbk	90	50	75
112	PT Sumi Indo Kabel Tbk	725	300	400
113	PT Supreme Cable Manufacturing Corporation (Sucaco) Tbk	925	1000	1025
114	PT Voksel Electric Tbk	150	110	120
115	PT Astra Graphia Tbk	0	0	0
116	PT Metrodata Electronics Tbk	0	0	0
117	PT Multi Agro Persada Tbk	0	0	0
118	PT Multipolar Corporation Tbk	0	0	0
119	PT Andhi Chandra Automotive Products Tbk	340	465	475
120	PT Astra International Tbk	2700	2550	5350
121	PT Astra Otoparts Tbk	1600	1250	1325
122	PT Branta Mulia Tbk	800	550	800
123	PT Gajah Tunggal Tbk	170	210	600
124	PT Goodyear Indonesia Tbk	4500	4100	4000
125	PT GT Petrochem Industries Tbk	0	0	0
126	PT Hexindo Adiperkasa Tbk	0	0	0
127	PT Indomobil Sukses International Tbk	0	0	0
128	PT Indospring Tbk	525	700	650
129	PT Intraco Penta Tbk	0	0	0
130	PT Multi Prima Sejahtera Tbk	550	600	1025
131	PT Nipress Tbk	0	0	0
132	PT Prima Alloy Steel Tbk	270	210	320
133	PT Selamat Sempurna Tbk	1725	1500	270
134	PT Sugi Samapersada Tbk	0	0	0
135	PT Tunas Ridean Tbk	0	0	0
136	PT United Tractors Tbk	0	0	0
137	PT Inter Delta Tbk	0	0	0
138	PT Modern Photo Film Company Tbk	0	0	0
139	PT Perdana Bangun Pusaka Tbk	0	0	0
140	PT Bristol-Myers Squibb Indonesia Tbk	10500	9800	15600
141	PT Dankos Laboratories Tbk	0	0	0
142	PT Darya-Varia Laboratoria Tbk	425	650	775
143	PT Indofarma (Persero) Tbk	235	200	160
144	PT Kalbe Farma Tbk	325	305	475
145	PT Kimia Farma (Persero) Tbk	230	165	185
146	PT Merck Tbk	12800	9000	21000
147	PT Pyridam Farma Tbk	310	275	60
148	PT Schering Plough Indonesia Tbk	16000	6750	10500
149	PT Tempo Scan Pacific Tbk	4850	4625	5200
150	PT Mandom Indonesia Tbk	2100	1625	2750
151	PT Mustika Ratu Tbk	1775	525	465
152	PT Unilever Indonesia Tbk	20500	18000	3550

Table A. 1

THE COMPANIES' LIST THAT REMOVED WITHIN

THIS RESEARCH

No.	Firms
1	PT Fast Food Indonesia Tbk
2	PT Pioneerindo Gourmet International (d/h Putra Sejahtera Pioneerindo (CFC)) Tbk
3	PT Century Textile Industry (Centex) Tbk
4	PT Panasia Indosyntec Tbk
5	PT Textile Manufacturing Company Jaya (Texmaco Jaya) Tbk
6	PT Fortune Mate Indonesia Tbk
7	PT Great River International Tbk
8	PT Hanson Industri Utama Tbk
9	PT Kasogi International Tbk
10	PT Pan Brothers Tex Tbk
11	PT Primarindo Asia Infrastructure Tbk
12	PT Ryane Adibusana Tbk
13	PT Barito Pacific Timber Tbk
14	PT Aneka Kimia Raya Tbk
15	PT Lautan Luas Tbk
16	PT Fatrapolindo Nusa Industri Tbk
17	PT Inti Indah Karya Plasindo Tbk
18	PT Palm Asia Corpore Tbk (PT Plaspak Prima Industri Tbk)
19	PT Siwani Makmur Tbk
20	PT Wahana Jaya Perkasa Tbk
21	PT Alakasa Industrindo Tbk
22	PT Tira Austenite Tbk
23	PT Keramika Indonesia Assosiasi Tbk
24	PT Komatsu Indonesia Tbk
25	PT Texmaco Perkasa Engineering Tbk
26	PT Astra Graphia Tbk
27	PT Metrodata Electronics Tbk
28	PT Multi Agro Persada Tbk
29	PT Multipolar Corporation Tbk
30	PT GT Petrochem Industries Tbk
31	PT Hexindo Adiperkasa Tbk
32	PT Indomobil Sukses International Tbk
33	PT Intraco Penta Tbk
34	PT Nipress Tbk
35	PT Sugi Samapersada Tbk
36	PT Tunas Ridean Tbk
37	PT United Tractors Tbk
38	PT Inter Delta Tbk
39	PT Modern Photo Film Company Tbk
40	PT Perdana Bangun Pusaka Tbk
41	PT Dankos Laboratories Tbk

TABLE 4.1

THE COMPANIES' STOCK PRICES LIST

THAT BECOME THE SAMPLE OF THE RESEARCH

No	firms	Closing Price per Share		
		2002	2003	2004
1	PT Ades Alfindo Putrasetia Tbk	1150	550	975
2	PT Aqua Golden Mississippi Tbk	38000	40000	47550
3	PT Cahaya Kalbar Tbk	190	220	255
4	PT Davomas Abadi Tbk	300	100	490
5	PT Delta Djakarta Tbk	9200	9000	10500
6	PT Indofood Sukses Makmur Tbk	825	600	775
7	PT Mayora Indah Tbk	420	365	975
8	PT Multi Bintang Indonesia Tbk	34250	30000	40000
9	PT Prasidha Aneka Niaga Tbk	125	125	125
10	PT Sari Husada Tbk	10250	10000	17800
11	PT Sekar Laut Tbk	400	275	500
12	PT Siantar Top Tbk	270	215	185
13	PT Sierad Produce Tbk	45	20	25
14	PT Sinar Mas Agro Resources and Technology Corporation (SMART) Tbk	925	1125	2900
15	PT Suba Indah Tbk	40	25	125
16	PT Tiga Pilar Sejahtera Tbk (Asia Intiselera)	165	330	195
17	PT Tunas Baru Lampung Tbk	290	140	170
18	PT Ultra Jaya Milk Industry and Trading Company Tbk	750	500	295
19	PT BAT Indonesia Tbk	7900	9150	9100
20	PT Gudang Garam Tbk	10950	7400	13000
21	PT Hanjaya Mandala Sampoerna Tbk	4575	2900	4500
22	PT Argo Pantes Tbk	700	700	1275
23	PT Eratex Djaja Limited Tbk	460	200	200
24	PT Panasia Filament Inti Tbk	195	70	45
25	PT Roda Vivatex Tbk	1125	1000	850
26	PT Sunson Textile Manufacture Tbk	330	175	115
27	PT Teijin Indonesia Fiber Corporation (Tifico) Tbk	300	165	240
28	PT APAC Citra Centertex Tbk	210	85	170
29	PT Daeyu Orchid Indonesia Tbk	100	60	80
30	PT Ever Shine Textile Industry Tbk	335	100	125
31	PT Indorama Syntetics Tbk	725	420	455
32	PT Karwell Indonesia Tbk	455	350	420
33	PT Ricky Putra Globalindo Tbk	160	45	320
34	PT Sarasa Nugraha Tbk	100	40	35
35	PT Sepatu Bata Tbk	16500	14000	15000
36	PT Surya Intrindo Makmur Tbk	1000	375	200
37	PT Daya Sakti Unggul Corporation Tbk	95	75	130
38	PT Sumalindo Lestari Jaya Tbk	105	65	110
39	PT Surya Dumai Industri Tbk	500	445	385
40	PT Tirta Mahakam Plywood Industry Tbk	150	95	110

41	PT Fajar Surya Wisesa Tbk	440	340	750
42	PT Indah Kiat Pulp & Paper Corporation Tbk	230	205	775
43	PT Pabrik Kertas Tjiwi Kimia Tbk	195	215	775
44	PT Suparma Tbk	85	75	190
45	PT Surabaya Agung Industry Pulp Tbk	75	65	65
46	PT Budi Acid Jaya Tbk	135	90	100
47	PT Colorpak Indonesia Tbk	450	365	480
48	PT Eterindo Wahanatama Tbk	75	70	195
49	PT Polysindo Eka Perkasa Tbk	35	15	60
50	PT Sorini Corporation Tbk	475	390	750
51	PT Unggul Indah Cahaya Tbk	1300	1100	2075
52	PT Duta Pertiwi Nusantara Tbk	415	200	220
53	PT Ekadharma Tape Industries Tbk	550	490	165
54	PT Intan Wijaya International Tbk	495	270	305
55	PT Resource Alam Indonesia Tbk (Kurnia Kapuas Utama Glue Industries) Tbk	240	90	160
56	PT Argha Karya Prima Industry Tbk	220	230	750
57	PT Asahimas Flat Glass Co Ltd Tbk	1225	1150	2300
58	PT Asiaplast Industries Tbk	45	20	35
59	PT Berlina Co Ltd Tbk	1500	1400	1275
60	PT Dynaplast Tbk	1200	975	1725
61	PT Kageo Igar Jaya Tbk (Igarjaya)	80	80	120
62	PT Langgeng Makmur Plastik Industry Ltd Tbk	80	35	55
63	PT Lapindo International Tbk	550	420	525
64	PT Summiplast Interbenua Tbk	210	170	150
65	PT Trias Sentosa Tbk	110	165	225
66	PT Indocement Tunggal Perkasa Tbk	850	825	1900
67	PT Semen Cibinong Tbk	320	150	375
68	PT Semen Gresik (Persero) Tbk	8450	7350	9950
69	PT Alumindo Light Metal Industry Tbk	625	145	235
70	PT Betonjaya Manunggal Tbk	140	125	200
71	PT Citra Tubindo Tbk	7900	8050	8000
72	PT Indal Aluminium Industry Tbk	310	115	150
73	PT Jakarta Kyoei Steel Works Ltd Tbk	35	20	125
74	PT Jaya Pari Steel Tbk	100	140	385
75	PT Lion Mesh Prima Tbk	525	350	925
76	PT Lion Metal Works Tbk	725	850	925
77	PT Pelangi Indah Canindo Tbk	175	60	160
78	PT Tembaga Mulia Semanan Tbk	2750	2600	2300
79	PT Kedaung Indah Can Tbk	350	370	150
80	PT Kedawung Setia Industrial Tbk	285	145	150
81	PT Arwana Citra Mulia Tbk	105	95	295
82	PT Intikeramik Alamasri Industry Tbk	125	80	135
83	PT Mulia Industrindo Tbk	155	110	250
84	PT Surya Toto Indonesia Tbk	5500	5500	4450
85	PT GL Kabel Indonesia Tbk	80	50	80
86	PT Jembo Cable Company Tbk	600	775	235
87	PT Kabelindo Murni Tbk	90	50	75
88	PT Sumi Indo Kabel Tbk	725	300	400
89	PT Supreme Cable Manufacturing Corporation (Sucaco) Tbk	925	1000	1025
90	PT Voksel Electric Tbk	150	110	120

91	PT Andhi Chandra Automotive Products Tbk	340	465	475
92	PT Astra International Tbk	2700	2550	5350
93	PT Astra Otoparts Tbk	1600	1250	1325
94	PT Branta Mulia Tbk	800	550	800
95	PT Gajah Tunggal Tbk	170	210	600
96	PT Goodyear Indonesia Tbk	4500	4100	4000
97	PT Indospring Tbk	525	700	650
98	PT Multi Prima Sejahtera Tbk	550	600	1025
99	PT Prima Alloy Steel Tbk	270	210	320
100	PT Selamat Sempurna Tbk	1725	1500	270
101	PT Bristol-Myers Squibb Indonesia Tbk	10500	9800	15600
102	PT Darya-Varia Laboratoria Tbk	425	650	775
103	PT Indofarma (Persero) Tbk	235	200	160
104	PT Kalbe Farma Tbk	325	305	475
105	PT Kimia Farma (Persero) Tbk	230	165	185
106	PT Merck Tbk	12800	9000	21000
107	PT Pyridam Farma Tbk	310	275	60
108	PT Schering Plough Indonesia Tbk	16000	6750	10500
109	PT Tempo Scan Pacific Tbk	4850	4625	5200
110	PT Mandom Indonesia Tbk	2100	1625	2750
111	PT Mustika Ratu Tbk	1775	525	465
112	PT Unilever Indonesia Tbk	20500	18000	3550

APPENDIX 2
LISTS OF FINANCIAL STATEMENTS OF SAMPLE COMPANIES, STOCK PRICES & INVENTORY METHODS

SUMMARY OF FINANCIAL STATEMENT OF 112 COMPANIES

Per 31 Desember

(In Million Rupiahs)

No.	Firms	Annual Inventory						
		1998	1999	2000	2001	2002	2003	2004
1	PT Ades Alfindo Putrasetia Tbk	12553	10217	11792	9987	9193	9981	7775
2	PT Aqua Golden Mississippi Tbk	4575	5883	9453	9129	7561	7816	23453
3	PT Cahaya Kalbar Tbk	48785	59133	69432	73129	72637	84726	63799
4	PT Davomas Abadi Tbk	77438	78175	91678	92412	53655	86736	86933
5	PT Delta Djakarta Tbk	17713	14949	20619	33052	32126	41630	40032
6	PT Indofood Sukses Makmur Tbk	1193846	1348653	1970598	2137103	2743304	2218210	2284332
7	PT Mayora Indah Tbk	72112	69434	113461	104526	88223	122798	184596
8	PT Multi Bintang Indonesia Tbk	56450	52658	60105	62420	59628	60829	72001
9	PT Prasidha Aneka Niaga Tbk	232612	241162	104915	100055	110680	33337	39958
10	PT Sari Husada Tbk	41010	79076	111931	102492	106022	75409	130829
11	PT Sekar Laut Tbk	21854	21503	24957	20895	20388	16692	16465
12	PT Siantar Top Tbk	20605	26719	47726	56802	112023	111783	94850
13	PT Sierad Produce Tbk	111531	177845	211776	252921	202218	175659	178808
14	PT Sinar Mas Agro Resources and Technology Corporation (SMART) Tbk	240737	232646	300743	292710	348610	475677	506080
15	PT Suba Indah Tbk	7160	7591	10287	8508	19768	47458	70338
16	PT Tiga Pilar Sejahtera Tbk (Asia Intiselera)	17012	7672	7557	5096	28804	26799	43809
17	PT Tunas Baru Lampung Tbk	79659	77537	80233	48588	51313	115595	129297
18	PT Ultra Jaya Milk Industry and Trading Company Tbk	83607	74072	103146	101132	103295	147635	150020
19	PT BAT Indonesia Tbk	440558	499487	472260	392531	392566	365959	411373
20	PT Gudang Garam Tbk	3467864	4250502	7197500	9103779	9381700	9528579	10875860
21	PT Hanjaya Mandala Sampoerna Tbk	1527374	2242541	4125651	5294415	5333008	4658728	4887583
22	PT Argo Pantes Tbk	273430	200763	268510	368059	337625	243585	286419
23	PT Eratex Djaja Limited Tbk	130211	85540	148336	134613	129730	92091	100356
24	PT Panasia Filament Inti Tbk	221852	168926	180958	247833	201632	180478	196469

25	PT Roda Vivatex Tbk	49330	53790	48098	52135	48473	35259	30865
26	PT Sunson Textile Manufacture Tbk	161236	188370	177258	196511	182564	198368	248464
27	PT Teijin Indonesia Fiber Corporation (Tifico) Tbk	126222	182991	224207	256011	201326	145926	152619
28	PT APAC Citra Centertex Tbk	324210	273773	361534	294583	296451	279575	290080
29	PT Daeyu Orchid Indonesia Tbk	157	690	436	1282	3948	1588	190558
30	PT Ever Shine Textile Industry Tbk	132268	134571	168838	224616	200845	188298	191405
31	PT Indorama Syntetics Tbk	261117	353410	502932	515393	436176	466764	617172
32	PT Karwell Indonesia Tbk	180583	126285	146646	102217	113039	86557	135218
33	PT Ricky Putra Globalindo Tbk	73276	88746	116056	111644	93218	92316	101512
34	PT Sarasa Nugraha Tbk	45660	47307	52808	66852	65063	39410	6827
35	PT Sepatu Bata Tbk	53457	75038	89030	89193	82828	106015	105050
36	PT Surya Intrindo Makmur Tbk	11898	40462	73676	84677	77156	45382	36262
37	PT Daya Sakti Unggul Corporation Tbk	89720	113664	147749	134292	138011	136990	142612
38	PT Sumalindo Lestari Jaya Tbk	173135	205802	266324	213398	230746	174924	211791
39	PT Surya Dumai Industri Tbk	90283	104494	119968	102359	107967	62594	89763
40	PT Tirta Mahakam Plywood Industry Tbk	57166	71536	94113	133881	130180	127025	249763
41	PT Fajar Surya Wisesa Tbk	187671	129841	188015	181792	180119	192261	197592
42	PT Indah Kiat Pulp & Paper Corporation Tbk	1228300	1871927	2964001	1889719	2519359	2661623	2892139
43	PT Pabrik Kertas Tjiwi Kimia Tbk	1442131	1450368	2213998	1671572	1742156	1605832	2193187
44	PT Suparma Tbk	168130	155592	128297	104509	105527	130939	151199
45	PT Surabaya Agung Industry Pulp Tbk	100506	84871	92605	134402	131243	72704	98556
46	PT Budi Acid Jaya Tbk	63529	71195	89540	97743	81570	151473	122022
47	PT Colorpak Indonesia Tbk	0	0	4737	4014	6225	6410	17884
48	PT Eterindo Wahanatama Tbk	92158	164178	179385	161325	225662	0	3429
49	PT Polysindo Eka Perkasa Tbk	394680	418683	551861	648033	518660	295950	642891
50	PT Sorini Corporation Tbk	73788	59048	117211	124117	121815	148946	122281
51	PT Unggul Indah Cahaya Tbk	262146	303785	395855	600780	459548	388533	815591
52	PT Duta Pertiwi Nusantara Tbk	8579	7415	13971	11035	12630	9828	19689
53	PT Ekadharma Tape Industries Tbk	6159	10273	13818	6660	9327	10325	15707
54	PT Intan Wijaya International Tbk	4432	5555	8493	7524	12094	6177	10842
55	PT Resource Alam Indonesia Tbk (Kurnia Kapuas Utama Glue Industries) Tbk	49941	41860	46073	46043	40272	43959	32943
56	PT Argha Karya Prima Industry Tbk	130623	120420	154035	140268	161367	167481	233098
57	PT Asahimas Flat Glass Co Ltd Tbk	314214	246981	318451	280168	290058	309070	313924

58	PT Asiaplast Industries Tbk	9807	13003	20404	33889	28606	36205	57512
59	PT Berlina Co Ltd Tbk	13860	19520	25243	25306	29082	25549	28447
60	PT Dynaplast Tbk	18564	18175	35432	34570	36000	55349	102496
61	PT Kageo Igar Jaya Tbk (Igarjaya)	22542	40479	60364	54537	55876	35751	65340
62	PT Langgeng Makmur Plastik Industry Ltd Tbk	55943	67844	78464	76866	99501	99928	112267
63	PT Lapindo International Tbk	654	970	861	1515	2288	8110	11643
64	PT Summiplast Interbenua Tbk	16403	14546	20416	6772	8573	10749	12808
65	PT Trias Sentosa Tbk	144257	120346	168526	166638	153250	187905	281196
66	PT Indocement Tunggal Perkasa Tbk	454883	464544	562090	828045	875872	709065	711899
67	PT Semen Cibinong Tbk	265331	281771	290183	219720	210665	222790	291233
68	PT Semen Gresik (Persero) Tbk	596953	538093	662610	769957	853838	768813	919561
69	PT Alumindo Light Metal Industry Tbk	168979	256400	299370	342528	262089	363499	315357
70	PT Betonjaya Manunggal Tbk	1826	2206	2710	3488	3377	2542	3252
71	PT Citra Tubindo Tbk	51594	231058	54100	66296	88240	71626	76205
72	PT Indal Aluminium Industry Tbk	36443	40111	87288	53839	79146	69618	117937
73	PT Jakarta Kyoei Steel Works Ltd Tbk	64710	14336	4990	23609	27354	24120	9493
74	PT Jaya Pari Steel Tbk	32453	6215	9324	17958	32249	35994	125121
75	PT Lion Mesh Prima Tbk	6012	5056	5996	8249	7589	7318	10022
76	PT Lion Metal Works Tbk	17235	17234	16554	27279	30406	26098	48471
77	PT Pelangi Indah Canindo Tbk	40934	33123	37409	47390	53201	60250	54857
78	PT Tembaga Mulia Semanan Tbk	67863	82673	107119	124112	141408	97158	134001
79	PT Kedaung Indah Can Tbk	40110	39065	49092	52528	55267	41465	51885
80	PT Kedawung Setia Industrial Tbk	56691	46181	67925	73652	89486	83375	104779
81	PT Arwana Citra Mulia Tbk	71967	111652	133313	9895	15503	14106	15114
82	PT Intikeramik Alamasri Industry Tbk	71967	111652	133313	159002	151273	139546	157667
83	PT Mulia Industrindo Tbk	306126	291679	334117	559772	675367	560046	546733
84	PT Surya Toto Indonesia Tbk	66772	62708	92082	107232	112975	120553	141279
85	PT GL Kabel Indonesia Tbk	104975	61010	86725	102829	84229	59076	94320
86	PT Jembo Cable Company Tbk	70198	89636	87034	89705	113209	87557	86387
87	PT Kabelindo Murni Tbk	32069	25599	23527	21560	16943	11336	18964
88	PT Sumi Indo Kabel Tbk	35289	48393	48053	52374	51027	34034	68763
89	PT Supreme Cable Manufacturing Corporation (Sucaco) Tbk	107585	83178	65367	43852	88359	114708	125827
90	PT Voksel Electric Tbk	100817	89403	111836	97140	95044	76390	97146

91	PT Andhi Chandra Automotive Products Tbk	9788	17685	30543	22091	22401	26726	44623
92	PT Astra International Tbk	2007763	1739590	3038371	3028927	2590775	1759560	3334329
93	PT Astra Otoparts Tbk	230260	159040	259430	217917	262404	256821	404953
94	PT Branta Mulia Tbk	193539	146220	362623	260883	233042	254572	284460
95	PT Gajah Tunggal Tbk	792784	895423	1117379	1182990	1013196	1050494	686924
96	PT Goodyear Indonesia Tbk	70818	67479	93875	75630	81928	78655	89438
97	PT Indospring Tbk	81270	61438	74683	81166	76253	94586	140930
98	PT Multi Prima Sejahtera Tbk	14756	6339	10044	15569	14324	11299	12958
99	PT Prima Alloy Steel Tbk	82477	51141	59577	60859	58143	57813	66896
100	PT Selamat Sempurna Tbk	55444	78868	105063	94574	100336	140892	206492
101	PT Bristol-Myers Squibb Indonesia Tbk	151863	182131	224472	22015	33888	11586	18110
102	PT Darya-Varia Laboratoria Tbk	71024	71647	88024	93050	38743	44883	58302
103	PT Indofarma (Persero) Tbk	113471	91818	159174	280892	285698	143412	109985
104	PT Kalbe Farma Tbk	130617	202033	275463	340477	330208	305614	446229
105	PT Kimia Farma (Persero) Tbk	179728	264804	246425	241872	228342	307510	221377
106	PT Merck Tbk	14281	22248	34197	37881	46920	49579	51484
107	PT Pyridam Farma Tbk	0	0	2366	5820	5192	5487	6070
108	PT Schering Plough Indonesia Tbk	9827	16778	16516	18893	13948	15016	15016
109	PT Tempo Scan Pacific Tbk	151863	182131	224472	266903	245275	258776	259746
110	PT Mandom Indonesia Tbk	56016	74519	3109	115145	111640	105874	124506
111	PT Mustika Ratu Tbk	42033	40330	39602	49427	53039	46480	42510
112	PT Unilever Indonesia Tbk	422006	438466	412673	301318	383902	517459	628826

SUMMARY OF FINANCIAL STATEMENT OF 112 COMPANIES

Per 31 Desember

(In Million Rupiahs)

No.	Firms	COG						
		1998	1999	2000	2001	2002	2003	2004
1	PT Ades Alfindo Putrasetia Tbk	60611	61323	91678	80067	96154	106899	106580
2	PT Aqua Golden Mississippi Tbk	304747	356365	478251	694647	897846	969935	1191197
3	PT Cahaya Kalbar Tbk	177130	206742	157090	133396	155455	168469	168575
4	PT Davomas Abadi Tbk	478492	478643	446671	486467	560228	738515	851108
5	PT Delta Djakarta Tbk	84663	112704	129143	156480	140841	159985	190353
6	PT Indofood Sukses Makmur Tbk	8834356	11548599	8964596	10776075	12398734	13405369	13323637
7	PT Mayora Indah Tbk	364418	421486	502612	643532	724448	804918	1035628
8	PT Multi Bintang Indonesia Tbk	212405	246983	275858	315399	285962	290529	402109
9	PT Prasidha Aneka Niaga Tbk	1783896	1159531	1193858	276767	363787	76361	219156
10	PT Sari Husada Tbk	160518	254718	362462	577314	583323	574088	664139
11	PT Sekar Laut Tbk	103999	130519	142417	149203	133272	131009	113735
12	PT Siantar Top Tbk	126549	183042	292605	429220	512469	574119	591216
13	PT Sierad Produce Tbk	434221	672700	956338	1194390	1182988	1054203	1283986
14	PT Sinar Mas Agro Resources and Technology Corporation (SMART) Tbk	1703472	2484708	2070823	1861476	2563899	2921165	3658560
15	PT Suba Indah Tbk	39679	47769	68977	103222	80231	413562	491016
16	PT Tiga Pilar Sejahtera Tbk (Asia Intiselera)	89647	67289	63995	54076	110573	122620	178856
17	PT Tunas Baru Lampung Tbk	494353	586279	556278	539695	511094	573771	962428
18	PT Ultra Jaya Milk Industry and Trading Company Tbk	134487	191354	243579	380185	278154	331151	371960
19	PT BAT Indonesia Tbk	564052	613446	479702	334430	282617	290269	313378
20	PT Gudang Garam Tbk	7352019	8943319	10837213	13519452	16108007	18615630	19457427
21	PT Hanjaya Mandala Sampoerna Tbk	3104718	4715521	6932271	9993830	10517229	10152735	11839970
22	PT Argo Pantes Tbk	964201	933374	813407	1039424	976267	1036890	1017993
23	PT Eratex Djaja Limited Tbk	299745	280534	326149	339351	320662	374860	369095
24	PT Panasia Filament Inti Tbk	440466	542322	550556	579499	547649	408599	406481

25	PT Roda Vivatex Tbk	180453	186780	162531	196071	196699	156836	148436
26	PT Sunson Textile Manufacture Tbk	338745	346513	409474	486288	456982	475831	526722
27	PT Teijin Indonesia Fiber Corporation (Tifico) Tbk	636900	601088	1404132	1674632	1548731	1901638	2534887
28	PT APAC Citra Centertex Tbk	1314215	1347478	1547034	1898822	1780943	1810114	2000842
29	PT Daeyu Orchid Indonesia Tbk	54012	34852	40279	72949	63278	75341	292843
30	PT Ever Shine Textile Industry Tbk	304336	339996	395213	425787	397436	390995	463722
31	PT Indorama Syntetics Tbk	1390563	1470204	2540862	2677532	2450807	2662748	3553756
32	PT Karwell Indonesia Tbk	919364	640010	753379	754573	505464	479285	504436
33	PT Ricky Putra Globalindo Tbk	165803	192286	213471	247555	216214	172953	157254
34	PT Sarasa Nugraha Tbk	237943	212050	272684	268554	252103	226211	189887
35	PT Sepatu Bata Tbk	85547	145678	192373	218872	222817	229245	250808
36	PT Surya Intrindo Makmur Tbk	77265	111901	128622	197164	135651	133156	89923
37	PT Daya Sakti Unggul Corporation Tbk	317956	410194	382634	470168	419530	405438	386883
38	PT Sumalindo Lestari Jaya Tbk	576967	739251	761652	878958	859927	700185	682974
39	PT Surya Dumai Industri Tbk	387555	436424	465701	440339	512873	354382	267567
40	PT Tirta Mahakam Plywood Industry Tbk	134999	230389	270491	341490	345678	367179	654929
41	PT Fajar Surya Wisesa Tbk	698612	807661	965526	991395	980094	1044802	1187962
42	PT Indah Kiat Pulp & Paper Corporation Tbk	3939790	5457905	9597226	9405736	9209454	10078390	11323628
43	PT Pabrik Kertas Tjiwi Kimia Tbk	2799984	4163982	7360334	5746102	5493661	5712508	6482156
44	PT Suparma Tbk	258109	332437	380843	375651	343668	396383	454690
45	PT Surabaya Agung Industry Pulp Tbk	485157	585294	633552	589687	518649	393242	292834
46	PT Budi Acid Jaya Tbk	491980	548308	588545	373268	685189	554275	787320
47	PT Colorpak Indonesia Tbk	0	0	32622	41581	35488	44767	102940
48	PT Eterindo Wahanatama Tbk	621664	931847	1150112	1124094	1165936	494073	95798
49	PT Polysindo Eka Perkasa Tbk	2986232	2899580	3628104	4187990	3999511	2421590	1738461
50	PT Sorini Corporation Tbk	273792	270760	314731	380671	424776	404210	415372
51	PT Unggul Indah Cahaya Tbk	858139	844254	1276116	1479695	1237250	1791916	2333332
52	PT Duta Pertiwi Nusantara Tbk	37687	34858	38850	54817	40449	56355	59157
53	PT Ekadharma Tape Industries Tbk	81292	71534	66048	66159	60397	63640	61369
54	PT Intan Wijaya International Tbk	67565	49077	49124	62571	56951	116530	130379
55	PT Resource Alam Indonesia Tbk (Kurnia Kapuas Utama Glue Industries) Tbk	136160	101003	116491	136159	129266	123938	128667
56	PT Argha Karya Prima Industry Tbk	494383	426024	534463	630264	660269	650084	766780
57	PT Asahimas Flat Glass Co Ltd Tbk	397023	579292	587800	732009	841454	904440	929428

58	PT Asiaplast Industries Tbk	15120	60666	115800	145299	175589	144662	220620
59	PT Berlina Co Ltd Tbk	57090	70964	104965	137919	150833	159754	197441
60	PT Dynaplast Tbk	110614	142981	217732	278795	312688	429880	569515
61	PT Kageo Igar Jaya Tbk (Igarjaya)	115308	170664	226772	282304	308799	285940	314471
62	PT Langgeng Makmur Plastik Industry Ltd Tbk	71496	109377	139179	174282	185359	208298	208676
63	PT Lapindo International Tbk	8208	8955	10651	18317	21881	53900	84444
64	PT Summiplast Interbenua Tbk	101291	99178	129754	120769	115177	143176	187874
65	PT Trias Sentosa Tbk	304203	351714	377761	544428	570744	618248	762682
66	PT Indocement Tunggal Perkasa Tbk	973974	1123913	1439388	2370743	2648367	2761762	3092419
67	PT Semen Cibinong Tbk	811583	1141161	1430366	1771215	1977100	2015729	2196901
68	PT Semen Gresik (Persero) Tbk	1276776	1864895	2202978	2860884	2536030	3507185	4005287
69	PT Alumindo Light Metal Industry Tbk	416463	700617	953088	979426	903209	999320	1213382
70	PT Betonjaya Manunggal Tbk	24286	16655	15331	16091	20435	17242	40782
71	PT Citra Tubindo Tbk	175275	110999	160172	341456	327411	550057	605743
72	PT Indal Aluminium Industry Tbk	152933	164341	199265	294040	256246	293274	438178
73	PT Jakarta Kyoei Steel Works Ltd Tbk	92693	48794	22001	34713	185545	111053	73228
74	PT Jaya Pari Steel Tbk	90055	78608	117642	78573	218974	214169	301101
75	PT Lion Mesh Prima Tbk	15338	23968	36590	44030	53344	59410	76250
76	PT Lion Metal Works Tbk	22693	20060	33464	42239	48820	50129	58251
77	PT Pelangi Indah Canindo Tbk	117857	138553	124288	135860	153358	154599	159509
78	PT Tembaga Mulia Semanan Tbk	301913	474967	678040	957756	913366	982483	1763257
79	PT Kedaung Indah Can Tbk	100408	88938	87870	87811	85074	85146	83970
80	PT Kedawung Setia Industrial Tbk	123834	199823	352876	381529	473429	468966	491646
81	PT Arwana Citra Mulia Tbk	77325	91276	116155	79532	107671	125527	137947
82	PT Intikeramik Alamasri Industry Tbk	77325	91276	116155	157141	174768	176675	181528
83	PT Mulia Industrindo Tbk	695469	991240	1088495	1312200	1554990	1804941	1956901
84	PT Surya Toto Indonesia Tbk	132467	146013	217990	278888	280340	334910	418249
85	PT GL Kabel Indonesia Tbk	216575	187677	225369	320590	337431	345784	419996
86	PT Jembo Cable Company Tbk	218229	128043	149578	245001	227511	253514	311024
87	PT Kabelindo Murni Tbk	58881	47535	46234	71817	91063	102702	139151
88	PT Sumi Indo Kabel Tbk	369009	292495	542271	647806	527124	555697	917184
89	PT Supreme Cable Manufacturing Corporation (Sucaco) Tbk	225332	276100	401005	587716	472402	569420	962840
90	PT Voksel Electric Tbk	264387	261094	332291	402628	478412	398157	542742

91	PT Andhi Chandra Automotive Products Tbk	32482	46897	90957	124714	106711	116073	153001
92	PT Astra International Tbk	7241478	11130624	23284363	24465854	24059817	23833547	34031168
93	PT Astra Otoparts Tbk	1009459	1243977	1639984	1690070	1664022	1743832	2356276
94	PT Branta Mulia Tbk	533609	521614	787594	944438	985897	986342	1167810
95	PT Gajah Tunggal Tbk	2471975	2891236	3970806	4656310	4712762	4857685	5683194
96	PT Goodyear Indonesia Tbk	411244	381538	438026	545630	499826	524991	681812
97	PT Indospring Tbk	27711	56988	108096	144954	173024	189754	266530
98	PT Multi Prima Sejahtera Tbk	25821	47818	29195	33014	29834	23815	31093
99	PT Prima Alloy Steel Tbk	78138	126283	131553	146144	178770	342589	489329
100	PT Selamat Sempurna Tbk	228858	243567	364069	404147	461504	483747	556294
101	PT Bristol-Myers Squibb Indonesia Tbk	499939	732481	766611	93229	99946	87188	83906
102	PT Darya-Varia Laboratoria Tbk	150459	189783	232777	277554	281234	128446	143411
103	PT Indofarma (Persero) Tbk	142360	209965	220828	311633	564822	361370	472968
104	PT Kalbe Farma Tbk	359246	543920	729039	1059022	1202975	1265321	1464979
105	PT Kimia Farma (Persero) Tbk	524486	705876	963402	950875	1093554	1273698	1279340
106	PT Merck Tbk	40885	54253	75394	88254	88546	115749	161465
107	PT Pyridam Farma Tbk	0	0	15968	9714	9506	10263	13236
108	PT Schering Plough Indonesia Tbk	40292	56175	56830	73217	69690	72778	58658
109	PT Tempo Scan Pacific Tbk	499939	732481	766611	967212	1090880	1156443	1302765
110	PT Mandom Indonesia Tbk	173991	235111	294747	353738	359162	386299	481975
111	PT Mustika Ratu Tbk	42800	67371	96518	97343	108219	98813	111955
112	PT Unilever Indonesia Tbk	2148564	2357092	2594253	3221217	3646380	3906550	4315329

SUMMARY OF FINANCIAL STATEMENT OF 112 COMPANIES

Per 31 Desember

(In Million Rupiahs)

No.	Firms	Earnings			Closing Price per Share (Per April 1st)			Common Equity per share		
		2002	2003	2004	2002	2003	2004	2002	2003	2004
1	PT Ades Alfindo Putrasetia Tbk	97	46	-991	1150	550	975	1143	1187	117
2	PT Aqua Golden Mississippi Tbk	5023	4716	6962	38000	40000	47550	16773	20572	26933
3	PT Cahaya Kalbar Tbk	33	11	-78	190	220	255	763	769	688
4	PT Davomas Abadi Tbk	18	74	16	300	100	490	402	476	111
5	PT Delta Djakarta Tbk	2800	2382	2417	9200	9000	10500	18428	20410	22068
6	PT Indofood Sukses Makmur Tbk	86	64	40	825	600	775	390	434	451
7	PT Mayora Indah Tbk	156	110	111	420	365	975	969	1061	1134
8	PT Multi Bintang Indonesia Tbk	4037	4282	4096	34250	30000	40000	13429	12734	12547
9	PT Prasidha Aneka Niaga Tbk	-1076	2277	3	125	125	125	-4048	-277	-274
10	PT Sari Husada Tbk	941	1171	923	10250	10000	17800	4447	5188	5196
11	PT Sekar Laut Tbk	557	141	-564	400	275	500	-4585	-4443	-5007
12	PT Siantar Top Tbk	23	24	22	270	215	185	206	229	243
13	PT Sierad Produce Tbk	-10	-15	-213	45	20	25	10	28	72
14	PT Sinar Mas Agro Resources and Technology Corporation (SMART) Tbk	946	234	-363	925	1125	2900	-1125	-852	-1172
15	PT Suba Indah Tbk	-83	-508	-455	40	25	125	1864	1356	823
16	PT Tiga Pilar Sejahtera Tbk (Asia Intiselera)	201	-8	6.69	165	330	195	-82.46	90.94	91.02
17	PT Tunas Baru Lampung Tbk	27	16	10	290	140	170	312	311	316
18	PT Ultra Jaya Milk Industry and Trading Company Tbk	10	4	2	750	500	295	273	291	280
19	PT BAT Indonesia Tbk	1791	748	-265	7900	9150	9100	6129	6337	6061
20	PT Gudang Garam Tbk	1085	956	930	10950	7400	13000	5046	5702	6332
21	PT Hanjaya Mandala Sampoerna Tbk	371	313	454	4575	2900	4500	1156	1282	1109

22	PT Argo Pantes Tbk	2062	56	-881	700	700	1275	-47	-7	-846
23	PT Eratex Djaja Limited Tbk	44	-479	-256	460	200	200	744	244	-14
24	PT Panasia Filament Inti Tbk	99	-170	-42	195	70	45	505	335	412
25	PT Roda Vivatex Tbk	-34	25	43	1125	1000	850	941	964	1007
26	PT Sunson Textile Manufacture Tbk	27	10	-58	330	175	115	336	406	348
27	PT Teijin Indonesia Fiber Corporation (Tifico) Tbk	-29.6	78.1	-169.7	300	165	240	533	793	709
28	PT APAC Citra Centertex Tbk	-196	-207	-63	210	85	170	-241	722	161
29	PT Daeyu Orchid Indonesia Tbk	-5.1	0.95	0.32	100	60	80	127	127	104.25
30	PT Ever Shine Textile Industry Tbk	1	-15	-7	335	100	125	193	178	171
31	PT Indorama Syntetics Tbk	51	62	70	725	420	455	3083	2978	3353
32	PT Karwell Indonesia Tbk	-4	-41	1	455	350	420	124	83	76
33	PT Ricky Putra Globalindo Tbk	-17	13	43	160	45	320	34	46	337
34	PT Sarasa Nugraha Tbk	-7	-19	-26.48	100	40	35	36	27	0.09
35	PT Sepatu Bata Tbk	3720	2764	2697	16500	14000	15000	11473	12187	13434
36	PT Surya Intrindo Makmur Tbk	-7	-36	-10	1000	375	200	115	79	69
37	PT Daya Sakti Unggul Corporation Tbk	56	-48	-12	95	75	130	220	169	159
38	PT Sumalindo Lestari Jaya Tbk	-306	-333	209	105	65	110	-592	-924	56
39	PT Surya Dumai Industri Tbk	-131	59	-21	500	445	385	-302	-85	-106
40	PT Tirta Mahakam Plywood Industry Tbk	18	8	10	150	95	110	203	193	186
41	PT Fajar Surya Wisesa Tbk	72	21	2	440	340	750	409	431	430
42	PT Indah Kiat Pulp & Paper Corporation Tbk	-433	-442	608	230	205	775	3137	2533	3139
43	PT Pabrik Kertas Tjiwi Kimia Tbk	-300	-191	1171	195	215	775	2841	2649	3820
44	PT Suparma Tbk	-58	11	-64	85	75	190	212	224	171
45	PT Surabaya Agung Industry Pulp Tbk	85	184	-1805	75	65	65	-4556	-4739	6044
46	PT Budi Acid Jaya Tbk	6	4	2	135	90	100	133	136	180
47	PT Colorpak Indonesia Tbk	28	15	21	450	365	480	149	155	172
48	PT Eterindo Wahanatama Tbk	-27	-32	-40	75	70	195	-351	405	366
49	PT Polysindo Eka Perkasa Tbk	109	-261	-464	35	15	60	-1741	-1851	-2350
50	PT Sorini Corporation Tbk	145	184	195	475	390	750	1386	1570	1740

51	PT Unggul Indah Cahaya Tbk	209	164	427	1300	1100	2075	2041	2197	2798
52	PT Duta Pertiwi Nusantara Tbk	21	-13	51	415	200	220	873	820	874
53	PT Ekadharma Tape Industries Tbk	140	97	20	550	490	165	1086	1113	239
54	PT Intan Wijaya International Tbk	29	47	65	495	270	305	822	859	847
55	PT Resource Alam Indonesia Tbk (Kurnia Kapuas Utama Glue Industries) Tbk	-7	-5	-2	240	90	160	561	556	554
56	PT Argha Karya Prima Industry Tbk	830	608	10	220	230	750	-878	807	834
57	PT Asahimas Flat Glass Co Ltd Tbk	476	376	476	1225	1150	2300	1672	1977	2376
58	PT Asiaplast Industries Tbk	-9	0.21	-5.7	45	20	35	113	113	107
59	PT Berlina Co Ltd Tbk	434	129	232	1500	1400	1275	2069	2003	2067
60	PT Dynaplast Tbk	155	178	151	1200	975	1725	1053	1183	1255
61	PT Kageo Igar Jaya Tbk (Igarjaya)	18	15	25	80	80	120	116	131	152
62	PT Langgeng Makmur Plastik Industry Ltd Tbk	-150	-90	-115	80	35	55	119	29	10
63	PT Lapindo International Tbk	7	2	4	550	420	525	92	94	99
64	PT Summiplast Interbenua Tbk	-3	2	9	210	170	150	133	135	144
65	PT Trias Sentosa Tbk	102	61	10	110	165	225	308	340	340
66	PT Indocement Tunggal Perkasa Tbk	283	182	32	850	825	1900	1035	1232	1265
67	PT Semen Cibinong Tbk	66	23	-70	320	150	375	327	347	281
68	PT Semen Gresik (Persero) Tbk	331	628	878	8450	7350	9950	5363	5923	6171
69	PT Alumindo Light Metal Industry Tbk	-47	-118	117	625	145	235	1125	1007	1124
70	PT Betonjaya Manunggal Tbk	13	1	13	140	125	200	121	120	128
71	PT Citra Tubindo Tbk	149	180	172	7900	8050	8000	6223	6266	6821
72	PT Indal Aluminium Industry Tbk	2	-251	15	310	115	150	622	372	387
73	PT Jakarta Kyoei Steel Works Ltd Tbk	157	255	-276	35	20	125	-2421	-2166	-2442
74	PT Jaya Pari Steel Tbk	106	80	417	100	140	385	451	451	868
75	PT Lion Mesh Prima Tbk	154	168	573	525	350	925	1172	1272	1821
76	PT Lion Metal Works Tbk	228	241	453	725	850	925	1817	1954	2317
77	PT Pelangi Indah Canindo Tbk	202	-4	-9	175	60	160	-1147	76	67
78	PT Tembaga Mulia Semanan Tbk	1147	433	-211	2750	2600	2300	5921	6297	5986
79	PT Kedaung Indah Can Tbk	-23	-96	-132	350	370	150	918	804	661

80	PT Kedawung Setia Industrial Tbk	-11	-64	-75	285	145	150	412	348	273
81	PT Arwana Citra Mulia Tbk	17	23	28	105	95	295	124	141	161
82	PT Intikeramik Alamasri Industry Tbk	65	-88	4	125	80	135	293	206	209
83	PT Mulia Industrindo Tbk	235	-129	-488	155	110	250	-800	-939	-1426
84	PT Surya Toto Indonesia Tbk	1390	640	522	5500	5500	4450	2169	2609	2932
85	PT GL Kabel Indonesia Tbk	763	-9	-33	80	50	80	198	28	-5
86	PT Jembo Cable Company Tbk	33	11	6	600	775	235	430	422	430
87	PT Kabelindo Murni Tbk	-38	-41	-23	90	50	75	162	121	114
88	PT Sumi Indo Kabel Tbk	-15	-32	24	725	300	400	1043	1011	1035
89	PT Supreme Cable Manufacturing Corporation (Sucaco) Tbk	298	74	-164	925	1000	1025	1237	1261	1063
90	PT Voksel Electric Tbk	86	-85	-295	150	110	120	-661	-915	-1199
91	PT Andhi Chandra Automotive Products Tbk	14	17	25	340	465	475	148	153	144
92	PT Astra International Tbk	1394	1096	1335	2700	2550	5350	2492	2902	4072
93	PT Astra Otoparts Tbk	343	273	291	1600	1250	1325	1396	1582	1821
94	PT Branta Mulia Tbk	244	164	94	800	550	800	1254	1413	1579
95	PT Gajah Tunggal Tbk	1207	275	151	170	210	600	145	419	532
96	PT Goodyear Indonesia Tbk	371	401	610	4500	4100	4000	6545	6519	6979
97	PT Indospring Tbk	824	119	-507	525	700	650	1824	1918	1960
98	PT Multi Prima Sejahtera Tbk	189	-28	-152	550	600	1025	737	3655	3503
99	PT Prima Alloy Steel Tbk	301	101	102	270	210	320	661	971	1063
100	PT Selamat Sempurna Tbk	31	37	44	1725	1500	270	268	275	264
101	PT Bristol-Myers Squibb Indonesia Tbk	1944	2751	41.514	10500	9800	15600	8674	11280	130462
102	PT Darya-Varia Laboratoria Tbk	113	87	89	425	650	775	406	481	570
103	PT Indofarma (Persero) Tbk	-19	-42	2	235	200	160	126	80	82
104	PT Kalbe Farma Tbk	66	40	46	325	305	475	121	102	150
105	PT Kimia Farma (Persero) Tbk	6	8	14	230	165	185	122	136	147
106	PT Merck Tbk	1671	2258	2555	12800	9000	21000	6663	7121	6876
107	PT Pyridam Farma Tbk	1	1	3	310	275	60	112	113	116
108	PT Schering Plough Indonesia Tbk	-291	665	-92	16000	6750	10500	885	621	528

109	PT Tempo Scan Pacific Tbk	703	717	721	4850	4625	5200	3163	3461	3805
110	PT Mandom Indonesia Tbk	372	396	529	2100	1625	2750	1945	2186	2550
111	PT Mustika Ratu Tbk	48	25	31	1775	525	465	561	543	579
112	PT Unilever Indonesia Tbk	1282	170	192	20500	18000	3550	2647	275	301

SUMMARY OF FINANCIAL STATEMENT OF 112 COMPANIES

Per 31 Desember

(In Million Rupiahs)

No.	Firms	Gross Profit			Selling and Administrative expense		
		2002	2003	2004	2002	2003	2004
1	PT Ades Alfindo Putrasetia Tbk	52302	62037	18974	60936	82037	88831
2	PT Aqua Golden Mississippi Tbk	124053	107287	141950	39228	28554	25193
3	PT Cahaya Kalbar Tbk	17513	12029	-963	9903	11044	9719
4	PT Davomas Abadi Tbk	40273	116452	181070	6297	8281	8592
5	PT Delta Djakarta Tbk	136796	142662	163127	78848	91360	104901
6	PT Indofood Sukses Makmur Tbk	4067551	4466057	4594892	2187416	2457262	2507501
7	PT Mayora Indah Tbk	274109	298976	342499	122309	147957	211867
8	PT Multi Bintang Indonesia Tbk	256432	272323	308802	134926	166789	205280
9	PT Prasidha Aneka Niaga Tbk	20922	13690	50834	32474	27770	28828
10	PT Sari Husada Tbk	438528	526043	571020	125228	189622	321126
11	PT Sekar Laut Tbk	25057	20509	24019	31929	32646	31556
12	PT Siantar Top Tbk	115305	126958	121342	75991	77302	73471
13	PT Sierad Produce Tbk	132714	72505	69636	110858	114018	138694
14	PT Sinar Mas Agro Resources and Technology Corporation (SMART) Tbk	515027	411156	616009	276741	294317	332614
15	PT Suba Indah Tbk	32404	29553	-61576	36678	46605	35760
16	PT Tiga Pilar Sejahtera Tbk (Asia Intiselera)	22572	44800	49581	20486	27389	24219
17	PT Tunas Baru Lampung Tbk	115554	141806	228582	64736	67623	94446
18	PT Ultra Jaya Milk Industry and Trading Company Tbk	130640	159481	174365	66268	73630	87912
19	PT BAT Indonesia Tbk	406031	300919	260048	236624	225517	283240
20	PT Gudang Garam Tbk	4831077	4521746	4834265	1376047	1591099	1916005
21	PT Hanjaya Mandala Sampoerna Tbk	4587808	4522390	5806724	1860313	2129788	2623446
22	PT Argo Pantes Tbk	57197	-8096	-35622	68142	72001	58358

23	PT Eratex Djaja Limited Tbk	43141	16148	56988	57163	60704	47283
24	PT Panasia Filament Inti Tbk	12216	-36974	-3148	54011	39113	53950
25	PT Roda Vivatex Tbk	160	21750	30149	19693	18477	17562
26	PT Sunson Textile Manufacture Tbk	50162	50353	21348	29321	39991	34114
27	PT Teijin Indonesia Fiber Corporation (Tifico) Tbk	30035	45317	55350	62708	62203	83976
28	PT APAC Citra Centertex Tbk	174088	102353	165149	161499	164732	179193
29	PT Daeyu Orchid Indonesia Tbk	8537	5848	18796	9392	5472	9554
30	PT Ever Shine Textile Industry Tbk	20433	-14313	23887	27294	25158	30969
31	PT Indorama Syntetics Tbk	384019	346023	383085	237069	244693	271845
32	PT Karwell Indonesia Tbk	35173	45722	78904	47380	57263	48582
33	PT Ricky Putra Globalindo Tbk	18688	34681	65003	34273	34122	38826
34	PT Sarasa Nugraha Tbk	16849	-5154	-8662	30448	31326	18582
35	PT Sepatu Bata Tbk	188212	178559	190116	110726	120848	129918
36	PT Surya Intrindo Makmur Tbk	889	-25325	3213	7610	7727	7470
37	PT Daya Sakti Unggul Corporation Tbk	123414	100678	134579	106741	117264	110191
38	PT Sumalindo Lestari Jaya Tbk	-56936	-10577	90585	79490	63410	73242
39	PT Surya Dumai Industri Tbk	74088	-16161	20950	42235	49140	32395
40	PT Tirta Mahakam Plywood Industry Tbk	34441	40415	93937	21230	23943	37207
41	PT Fajar Surya Wisesa Tbk	193972	163057	239069	104551	89865	101755
42	PT Indah Kiat Pulp & Paper Corporation Tbk	1502472	1289852	1978598	965798	1165812	1512259
43	PT Pabrik Kertas Tjiwi Kimia Tbk	1473894	1637588	1940060	873292	949357	1098235
44	PT Suparma Tbk	65683	73814	91809	28162	32099	36217
45	PT Surabaya Agung Industry Pulp Tbk	-19158	-37382	618	102017	75653	70394
46	PT Budi Acid Jaya Tbk	86800	79843	142228	62847	39417	52861
47	PT Colorpak Indonesia Tbk	14968	11111	14275	5057	6503	8307
48	PT Eterindo Wahanatama Tbk	158536	51412	11053	132074	41618	8521
49	PT Polysindo Eka Perkasa Tbk	-203576	-343569	-397185	518218	299795	143394
50	PT Sorini Corporation Tbk	108656	86867	160312	67553	67842	88380
51	PT Unggul Indah Cahaya Tbk	303630	327351	443485	83267	173250	212588

52	PT Duta Pertiwi Nusantara Tbk	17853	13421	16560	11903	14524	16330
53	PT Ekadharma Tape Industries Tbk	15052	18234	18227	9581	14032	12327
54	PT Intan Wijaya International Tbk	28020	30728	28261	12802	14278	16197
55	PT Resource Alam Indonesia Tbk (Kurnia Kapuas Utama Glue Industries) Tbk	42886	29467	28900	26776	26655	30410
56	PT Argha Karya Prima Industry Tbk	258269	194628	180097	87258	100670	92893
57	PT Asahimas Flat Glass Co Ltd Tbk	452830	452938	527838	210052	214610	226035
58	PT Asiaplast Industries Tbk	2322	24401	21070	9023	7968	9101
59	PT Berlina Co Ltd Tbk	75078	54742	70105	19299	23711	29415
60	PT Dynaplast Tbk	133526	159448	171932	45674	68447	72884
61	PT Kageo Igar Jaya Tbk (Igarjaya)	81787	79699	60735	30036	28355	25137
62	PT Langgeng Makmur Plastik Industry Ltd Tbk	38372	36134	28620	30823	33944	34515
63	PT Lapindo International Tbk	2669	4674	6717	2484	3522	3937
64	PT Summiplast Interbenua Tbk	7908	12337	25852	9857	10090	11959
65	PT Trias Sentosa Tbk	210893	175147	140412	52301	57601	67187
66	PT Indocement Tunggal Perkasa Tbk	1299915	1395922	1523088	369971	581545	686852
67	PT Semen Cibinong Tbk	1832	224567	171588	212560	238362	241571
68	PT Semen Gresik (Persero) Tbk	1641513	1892976	2062271	881148	963938	1104434
69	PT Alumindo Light Metal Industry Tbk	60156	66409	116842	70554	60611	61765
70	PT Betonjaya Manunggal Tbk	8	1301	5031	1575	1551	2076
71	PT Citra Tubindo Tbk	48524	65942	64848	48311	59242	63515
72	PT Indal Aluminium Industry Tbk	31044	20587	32364	32486	32821	30303
73	PT Jakarta Kyoei Steel Works Ltd Tbk	3868	-5160	14104	3864	4395	12792
74	PT Jaya Pari Steel Tbk	34063	33718	78826	13364	11108	10898
75	PT Lion Mesh Prima Tbk	4119	5695	12988	3330	3456	3814
76	PT Lion Metal Works Tbk	34715	37868	52864	17266	20859	23641
77	PT Pelangi Indah Canindo Tbk	5237	4754	16070	17127	-18184	-16517
78	PT Tembaga Mulia Semanan Tbk	39737	37893	59958	34658	34477	38220
79	PT Kedaung Indah Can Tbk	20710	-872	3951	15421	17091	15522
80	PT Kedawung Setia Industrial Tbk	39665	29587	51109	55432	60537	59753

81	PT Arwana Citra Mulia Tbk	57411	67722	79010	23092	27650	27027
82	PT Intikeramik Alamasri Industry Tbk	14304	11138	41546	39531	38307	36926
83	PT Mulia Industrindo Tbk	626710	351326	614794	439342	472837	538162
84	PT Surya Toto Indonesia Tbk	134363	122338	152614	61839	58796	65804
85	PT GL Kabel Indonesia Tbk	23524	-6417	-7663	43783	36143	31256
86	PT Jembo Cable Company Tbk	30760	28518	49891	31650	26752	37446
87	PT Kabelindo Murni Tbk	-4461	-10732	-13535	9912	10866	7909
88	PT Sumi Indo Kabel Tbk	33195	26547	58886	21830	38491	34105
89	PT Supreme Cable Manufacturing Corporation (Sucaco) Tbk	71155	78053	28851	36235	49739	50895
90	PT Voksel Electric Tbk	37651	35571	49517	44143	37736	43787
91	PT Andhi Chandra Automotive Products Tbk	21701	26626	35188	9834	11075	12277
92	PT Astra International Tbk	6625216	7679407	10313404	3814649	4281613	5455318
93	PT Astra Otoparts Tbk	399471	407673	568305	225443	259003	329668
94	PT Branta Mulia Tbk	318471	249090	304868	184666	161449	157600
95	PT Gajah Tunggal Tbk	848140	871821	1124385	496814	648114	440611
96	PT Goodyear Indonesia Tbk	63421	66420	86079	37539	39928	50479
97	PT Indospring Tbk	40574	26418	38358	17349	23065	31058
98	PT Multi Prima Sejahtera Tbk	4872	5049	7669	6279	8563	9525
99	PT Prima Alloy Steel Tbk	13701	48845	52376	12587	19346	24768
100	PT Selamat Sempurna Tbk	141851	153842	174668	57726	64292	69841
101	PT Bristol-Myers Squibb Indonesia Tbk	105677	110305	137685	66442	60638	66776
102	PT Darya-Varia Laboratoria Tbk	267786	261900	283386	197223	179890	203323
103	PT Indofarma (Persero) Tbk	123162	136837	216554	175419	185325	165928
104	PT Kalbe Farma Tbk	1358827	1623888	1948118	844420	1057553	1214529
105	PT Kimia Farma (Persero) Tbk	445158	542685	646649	384286	450364	521941
106	PT Merck Tbk	132372	180571	211876	81219	112348	128958
107	PT Pyridam Farma Tbk	15123	16993	20733	13636	15141	18308
108	PT Schering Plough Indonesia Tbk	40235	44658	53347	35174	36531	48068
109	PT Tempo Scan Pacific Tbk	868555	967718	1068789	483632	586743	684173

110	PT Mandom Indonesia Tbk	223586	250857	318637	137840	160277	193221
111	PT Mustika Ratu Tbk	144758	130966	131924	102860	103164	110776
112	PT Unilever Indonesia Tbk	3368801	4217075	4669493	2048646	2440049	2630295

SUMMARY OF FINANCIAL STATEMENT OF 112 COMPANIES

Per 31 Desember

(In Million Rupiahs)

No.	Firms	Number of Shares			Inventory Method	
		2002	2003	2004	2003	2004
1	PT Ades Alfindo Putrasetia Tbk	76000000	76000000	149720000	FIFO	FIFO
2	PT Aqua Golden Mississippi Tbk	13162473	13162473	13162473	FIFO	FIFO
3	PT Cahaya Kalbar Tbk	297500000	297500000	297500000	AVERAGE	AVERAGE
4	PT Davomas Abadi Tbk	1240371132	1240371132	6201855660	FIFO	FIFO
5	PT Delta Djakarta Tbk	16013181	16013181	16013181	AVERAGE	AVERAGE
6	PT Indofood Sukses Makmur Tbk	9384900000	9443269500	9444189000	AVERAGE	AVERAGE
7	PT Mayora Indah Tbk	766584000	766584000	766584000	AVERAGE	AVERAGE
8	PT Multi Bintang Indonesia Tbk	21070000	21070000	21070000	AVERAGE	AVERAGE
9	PT Prasidha Aneka Niaga Tbk	360000000	360000000	360000000	AVERAGE	AVERAGE
10	PT Sari Husada Tbk	188352433	188352433	1970000000	AVERAGE	AVERAGE
11	PT Sekar Laut Tbk	75600000	75600000	75600000	AVERAGE	AVERAGE
12	PT Siantar Top Tbk	1310000000	1310000000	1310000000	AVERAGE	AVERAGE
13	PT Sierad Produce Tbk	7237865083	7237865083	723786509	AVERAGE	AVERAGE
14	PT Sinar Mas Agro Resources and Technology Corporation (SMART) Tbk	297360000	297360000	297360000	AVERAGE	AVERAGE
15	PT Suba Indah Tbk	2160000000	270000000	288054000	AVERAGE	AVERAGE
16	PT Tiga Pilar Sejahtera Tbk (Asia Intiselera)	365000000	1045000000	1045000000	FIFO	FIFO
17	PT Tunas Baru Lampung Tbk	1538464000	1615387200	1615387200	AVERAGE	AVERAGE
18	PT Ultra Jaya Milk Industry and Trading Company Tbk	1925588000	1925588000	2888382000	FIFO	FIFO
19	PT BAT Indonesia Tbk	66000000	66000000	66000000	AVERAGE	AVERAGE
20	PT Gudang Garam Tbk	1924088000	1924088000	1924088000	AVERAGE	AVERAGE
21	PT Hanjaya Mandala Sampoerna Tbk	4500000000	4500000000	4383000000	AVERAGE	AVERAGE
22	PT Argo Pantes Tbk	264705000	264705000	264705000	AVERAGE	AVERAGE

23	PT Eratex Djaja Limited Tbk	98236000	98236000	98236000	AVERAGE	AVERAGE
24	PT Panasia Filament Inti Tbk	250000000	250000000	250000000	FIFO	FIFO
25	PT Roda Vivatex Tbk	268800000	268800000	268800000	FIFO	FIFO
26	PT Sunson Textile Manufacture Tbk	836707000	836707000	836707000	AVERAGE	AVERAGE
27	PT Teijin Indonesia Fiber Corporation (Tifico) Tbk	930000000	930000000	930000000	AVERAGE	AVERAGE
28	PT APAC Citra Centertex Tbk	534666577	534666577	1466666577		
29	PT Daeyu Orchid Indonesia Tbk	205770930	205770930	2777895930	FIFO	FIFO
30	PT Ever Shine Textile Industry Tbk	2015208720	2015208720	2015208720	AVERAGE	AVERAGE
31	PT Indorama Syntetics Tbk	654351707	654351707	654351707	AVERAGE	AVERAGE
32	PT Karwell Indonesia Tbk	587152700	587152700	587152700	AVERAGE	AVERAGE
33	PT Ricky Putra Globalindo Tbk	288000000	288000000	641717510	AVERAGE	AVERAGE
34	PT Sarasa Nugraha Tbk	2200000000	2200000000	2200000000	FIFO	FIFO
35	PT Sepatu Bata Tbk	13000000	13000000	13000000	AVERAGE	AVERAGE
36	PT Surya Intrindo Makmur Tbk	1000000000	1000000000	1000000000	FIFO	FIFO
37	PT Daya Sakti Unggul Corporation Tbk	500000000	500000000	500000000	AVERAGE	AVERAGE
38	PT Sumalindo Lestari Jaya Tbk	468750000	468750000	782476629	AVERAGE	AVERAGE
39	PT Surya Dumai Industri Tbk	2500000000	3166666667	3166666667	AVERAGE	AVERAGE
40	PT Tirta Mahakam Plywood Industry Tbk	624000000	780000000	1011774750	AVERAGE	AVERAGE
41	PT Fajar Surya Wisesa Tbk	2477888787	2477888787	2477888787	AVERAGE	AVERAGE
42	PT Indah Kiat Pulp & Paper Corporation Tbk	5470982941	5470982941	5470982941	AVERAGE	AVERAGE
43	PT Pabrik Kertas Tjiwi Kimia Tbk	1335702240	1335702240	1335702240	AVERAGE	AVERAGE
44	PT Suparma Tbk	992046658	992046658	992046658	AVERAGE	AVERAGE
45	PT Surabaya Agung Industry Pulp Tbk	294000000	294000000	294000000	AVERAGE	AVERAGE
46	PT Budi Acid Jaya Tbk	1050000000	1050000000	1050000000	AVERAGE	AVERAGE
47	PT Colorpak Indonesia Tbk	306288500	306307000	306338500	FIFO	FIFO
48	PT Eterindo Wahanatama Tbk	968297000	968297000	968297000	AVERAGE	AVERAGE
49	PT Polysindo Eka Perkasa Tbk	4393920000	4393920000	4393920000	AVERAGE	AVERAGE
50	PT Sorini Corporation Tbk	180000000	180000000	180000000		
51	PT Unggul Indah Cahaya Tbk	383331363	383331363	383331363	AVERAGE	AVERAGE

52	PT Duta Pertiwi Nusantara Tbk	125945820	125945820	125945820	FIFO	FIFO
53	PT Ekadharma Tape Industries Tbk	44721600	44721600	223608000	AVERAGE	AVERAGE
54	PT Intan Wijaya International Tbk	168666667	168666667	181035556		
55	PT Resource Alam Indonesia Tbk (Kurnia Kapuas Utama Glue Industries) Tbk	250000000	250000000	250000000	AVERAGE	AVERAGE
56	PT Argha Karya Prima Industry Tbk	352000000	680000000	680000000	AVERAGE	AVERAGE
57	PT Asahimas Flat Glass Co Ltd Tbk	434000000	434000000	434000000	AVERAGE	AVERAGE
58	PT Asiaplast Industries Tbk	1300000000	1300000000	1300000000	AVERAGE	AVERAGE
59	PT Berlina Co Ltd Tbk	69000000	69000000	69000000	FIFO	FIFO
60	PT Dynaplast Tbk	302594440	307141440	314705440	FIFO	FIFO
61	PT Kageo Igar Jaya Tbk (Igarjaya)	1050000000	1050000000	1050000000	FIFO	FIFO
62	PT Langgeng Makmur Plastik Industry Ltd Tbk	346344895	443706186	443706186	AVERAGE	AVERAGE
63	PT Lapindo International Tbk	264050300	264280700	264398200	FIFO	FIFO
64	PT Summiplast Interbenua Tbk	835000000	835000000	835000000	AVERAGE	AVERAGE
65	PT Trias Sentosa Tbk	2160000000	2808000000	2808000000	AVERAGE	AVERAGE
66	PT Indocement Tunggal Perkasa Tbk	3681223519	3681231699	3681231699	AVERAGE	AVERAGE
67	PT Semen Cibinong Tbk	7662900000	7662900000	7662900000	AVERAGE	AVERAGE
68	PT Semen Gresik (Persero) Tbk	593152000	593152000	593152000	AVERAGE	AVERAGE
69	PT Alumindo Light Metal Industry Tbk	308000000	308000000	308000000	AVERAGE	AVERAGE
70	PT Betonjaya Manunggal Tbk	180000000	180000000	180000000	AVERAGE	AVERAGE
71	PT Citra Tubindo Tbk	80000000	80000000	80000000	AVERAGE	AVERAGE
72	PT Indal Aluminium Industry Tbk	158400000	158400000	158400000	AVERAGE	AVERAGE
73	PT Jakarta Kyoei Steel Works Ltd Tbk	150000000	150000000	150000000	AVERAGE	AVERAGE
74	PT Jaya Pari Steel Tbk	150000000	150000000	150000000	AVERAGE	AVERAGE
75	PT Lion Mesh Prima Tbk	9600000	9600000	9600000	AVERAGE	AVERAGE
76	PT Lion Metal Works Tbk	52016000	52016000	52016000	AVERAGE	AVERAGE
77	PT Pelangi Indah Canindo Tbk	135500000	531880000	531880000	AVERAGE	AVERAGE
78	PT Tembaga Mulia Semanan Tbk	18367000	18367000	18367000		
79	PT Kedaung Indah Can Tbk	138000000	138000000	138000000	AVERAGE	AVERAGE
80	PT Kedawung Setia Industrial Tbk	301000000	301000000	301000000	AVERAGE	AVERAGE

81	PT Arwana Citra Mulia Tbk	905604150	905604150	905604150	AVERAGE	AVERAGE
82	PT Intikeramik Alamasri Industry Tbk	450000000	450000000	450000000	AVERAGE	AVERAGE
83	PT Mulia Industrindo Tbk	1323000000	1323000000	1323000000	AVERAGE	AVERAGE
84	PT Surya Toto Indonesia Tbk	49536000	49536000	49536000	AVERAGE	AVERAGE
85	PT GL Kabel Indonesia Tbk	560000000	3075000000	3075000000	AVERAGE	AVERAGE
86	PT Jembo Cable Company Tbk	151200000	151200000	151200000	AVERAGE	AVERAGE
87	PT Kabelindo Murni Tbk	1120000000	1120000000	1120000000	FIFO	FIFO
88	PT Sumi Indo Kabel Tbk	306000000	306000000	306000000	AVERAGE	AVERAGE
89	PT Supreme Cable Manufacturing Corporation (Sucaco) Tbk	205583400	205583400	205583400	AVERAGE	AVERAGE
90	PT Voksel Electric Tbk	126000000	126000000	126000000	AVERAGE	AVERAGE
91	PT Andhi Chandra Automotive Products Tbk	804000000	804000000	804000000	AVERAGE	AVERAGE
92	PT Astra International Tbk	2608068910	4034490996	4048355314	AVERAGE	AVERAGE
93	PT Astra Otoparts Tbk	749930280	755317280	767978280	AVERAGE	AVERAGE
94	PT Branta Mulia Tbk	450000000	450000000	450000000	AVERAGE	AVERAGE
95	PT Gajah Tunggal Tbk	3168000000	3168000000	3168000000	AVERAGE	AVERAGE
96	PT Goodyear Indonesia Tbk	41000000	41000000	41000000	AVERAGE	AVERAGE
97	PT Indospring Tbk	37500000	37500000	37500000	AVERAGE	AVERAGE
98	PT Multi Prima Sejahtera Tbk	21250000	21250000	21250000	AVERAGE	AVERAGE
99	PT Prima Alloy Steel Tbk	76000000	117600000	117600000	AVERAGE	AVERAGE
100	PT Selamat Sempurna Tbk	259733760	1298668800	1298668800	AVERAGE	AVERAGE
101	PT Bristol-Myers Squibb Indonesia Tbk	972000	972000	972000	FIFO	FIFO
102	PT Darya-Varia Laboratoria Tbk	560000000	560000000	560000000	AVERAGE	AVERAGE
103	PT Indofarma (Persero) Tbk	3099267500	3099267500	3099267500	AVERAGE	AVERAGE
104	PT Kalbe Farma Tbk	4060800000	4060800000	8121600000	FIFO	FIFO
105	PT Kimia Farma (Persero) Tbk	5554000000	5554000000	5554000000	FIFO	FIFO
106	PT Merck Tbk	22400000	22400000	22400000	AVERAGE	AVERAGE
107	PT Pyridam Farma Tbk	535080000	535080000	535080000	AVERAGE	AVERAGE
108	PT Schering Plough Indonesia Tbk	3600000	3600000	3600000	FIFO	FIFO
109	PT Tempo Scan Pacific Tbk	450000000	450000000	450000000	AVERAGE	AVERAGE

110	PT Mandom Indonesia Tbk	156000000	156000000	156000000	AVERAGE	AVERAGE
111	PT Mustika Ratu Tbk	428000000	428000000	428000000	FIFO	FIFO
112	PT Unilever Indonesia Tbk	763000000	7630000000	7630000000	AVERAGE	AVERAGE

APPENDIX 3
LISTS OF GROUPING SAMPLE
FIRMS & DUMMIES FOR
GROUPING SAMPLE FIRMS

TABLE B

SUMMARY OF GROUPING SAMPLE FIRMS

No.	Firm	Change Cost of Goods Sold					Production Added to Inventory				
		cog00	cog01	cog02	cog03	cog04	pai99	pai00	pai01	pai02	pai03
1	PT Ades Alfindo Putrasetia Tbk	0.4950019	-0.1266498	0.2009192	0.1117478	-0.0029841	1.0002119	1.0000804	1.0001113	1.0001408	1.0000038
2	PT Aqua Golden Mississippi Tbk	0.3420257	0.4524737	0.2925212	0.0802911	0.2281204	0.9997386	0.9998733	1.0009037	1.0000512	0.9991062
3	PT Cahaya Kalbar Tbk	-0.2401641	-0.1508307	0.1653648	0.0837155	0.0006292	1.0000232	1.0000146	0.9999553	1.0001702	0.9999999
4	PT Davomas Abadi Tbk	-0.0667972	0.0890947	0.1516259	0.3182401	0.1524587	1.0000906	0.9999934	0.9997935	1.0000082	0.9999954
5	PT Delta Djakarta Tbk	0.14586	0.2116801	-0.0999425	0.1359263	0.1898178	1.0000528	0.9999627	1.000008	1.0001468	0.99998
6	PT Indofood Sukses Makmur Tbk	-0.2237503	0.2020703	0.1505798	0.0811885	-0.006097	1.0000014	0.9999997	0.9999991	0.9999999	1
7	PT Mayora Indah Tbk	0.1924761	0.2803753	0.1257373	0.1110777	0.2866255	1.0000719	0.9999936	1.0000141	1.0000068	0.9999917
8	PT Multi Bintang Indonesia Tbk	0.1169109	0.1433382	-0.0933326	0.0159707	0.384058	1.0000308	0.9999808	1.0000403	1.0000057	0.9996803
9	PT Prasidha Aneka Niaga Tbk	0.0296042	-0.7681743	0.3144161	-0.7900942	1.8699991	0.9999965	0.9999944	1.0000647	1.0000744	1.0000242
10	PT Sari Husada Tbk	0.4229933	0.5927573	0.0104085	-0.0158317	0.1568592	0.9999889	0.999982	1.0000011	1.0000045	1.0000051
11	PT Sekar Laut Tbk	0.0911591	0.0476488	-0.106774	-0.0169803	-0.1318535	1.0002598	0.9999862	0.9999737	0.9999665	0.9999643
12	PT Siantar Top Tbk	0.5985675	0.4668922	0.1939541	0.1203	0.0297795	0.9999021	0.9999778	0.9999786	0.9999978	1.0001241
13	PT Sierad Produce Tbk	0.4216411	0.2489204	-0.0095463	-0.1088642	0.2179685	0.9999936	0.9999927	1.0000002	0.9999979	1.0000082
14	PT Sinar Mas Agro Resources and Technology Corporation (SMART) Tbk	-0.1665729	-0.1010936	0.3773473	0.1393448	0.2524318	0.9999794	1.0000015	1.000047	0.9999975	0.999998
15	PT Suba Indah Tbk										
16	PT Tiga Pilar Sejahtera Tbk (Asia Intiselera)	0.4439699	0.4964698	-0.2227335	4.154641	0.1872851	0.998971	0.9998159	0.9998748	0.9996312	0.9999932
17	PT Tunas Baru Lampung Tbk	-0.048953	-0.1549965	1.0447703	0.1089506	0.4586201	0.9999948	0.998654	1.0004247	0.9999954	1.0002288
18	PT Ultra Jaya Milk Industry and Trading Company Tbk	-0.0511719	-0.0298106	-0.0529947	0.122633	0.677373	0.9999759	1.0000111	0.9999983	0.999955	0.9999895
19	PT BAT Indonesia Tbk	0.2729235	0.5608283	-0.268372	0.1905311	0.1232338	1.0000286	0.9999807	0.9998668	0.9999119	0.9999972
20	PT Gudang Garam Tbk	-0.2180208	-0.302838	-0.1549293	0.0270755	0.0796124	1.0000037	0.9999889	0.9999981	0.999227	1.000003
21	PT Hanjaya Mandala Sampoerna Tbk	0.2117663	0.2475027	0.1914689	0.1556756	0.0452199	0.9999997	0.9999999	0.9999999	0.9999994	0.9999997
22	PT Argo Pantes Tbk	0.4700965	0.4416387	0.0523722	-0.0346568	0.1661853	0.9999993	0.9999998	1	1.0000009	1.0000002
23	PT Eratex Djaja Limited Tbk	-0.1285305	0.2778646	-0.0607615	0.0620967	-0.0182247	0.9999982	0.9999959	1.0000006	1.000002	0.9999998
		0.1626006	0.0404784	-0.0550728	0.1690191	-0.0153791	1.0000036	0.9999994	0.999996	1.0000346	0.9999996

24	PT Panasia Filament Inti Tbk	0.0151829	0.0525705	-0.0549613	-0.2539035	-0.0051836	1.0000003	0.9999956	1.0000008	0.9999945	0.9999998
25	PT Roda Vivatex Tbk	-0.1298265	0.2063606	0.0032029	-0.2026599	-0.0535591	1.0000291	1.0000363	0.9999992	0.9999447	0.9999959
26	PT Sunson Textile Manufacture Tbk	0.1816988	0.1875919	-0.0602647	0.0412467	0.1069518	0.9999933	1.0000169	1.0000031	1.000003	0.9999932
27	PT Teijin Indonesia Fiber Corporation (Tifico) Tbk	1.3359841	0.1926457	-0.0751813	0.2278685	0.3330019	0.9999765	0.9999953	1.0000024	1.0000042	1.000006
28	PT APAC Citra Centertex Tbk	0.1480959	0.2273951	-0.0620801	0.0163795	0.1053679	1.0000029	0.9999974	0.9999991	0.9999912	1.0000062
29	PT Daeyu Orchid Indonesia Tbk	0.1557156	0.8110926	-0.1325721	0.190635	2.8869009	0.9997079	1.0032035	1.0001567	0.9999285	1.0012248
30	PT Ever Shine Textile Industry Tbk	0.1624049	0.0773608	-0.0665849	-0.0162064	0.1860049	0.9999295	0.9999977	1.0000012	0.9999993	1.0000148
31	PT Indorama Syntetics Tbk	0.7282377	0.0537888	-0.0846769	0.086478	0.3346197	0.9999921	0.9999996	1.0000068	1.0000011	0.9999891
32	PT Karwell Indonesia Tbk	0.1771363	0.0015849	-0.3301324	-0.051792	0.0524761	1.0000033	0.9999999	0.9999926	1.0000048	1.000002
33	PT Ricky Putra Globalindo Tbk	0.1101744	0.1596657	-0.1266022	-0.2000842	-0.0907703	0.9999929	0.9999942	0.9999713	0.9999891	0.9998994
34	PT Sarasa Nugraha Tbk	0.285942	-0.0151457	-0.0612577	-0.1027041	-0.1605757	0.9998264	1.0000028	1.0000044	0.9999426	0.9999937
35	PT Sepatu Bata Tbk	0.3205357	0.137748	0.0180242	0.0288488	0.0940609	0.9999851	0.9999902	0.9998894	1.0000045	0.9999959
36	PT Surya Intrindo Makmur Tbk	0.1494267	0.5328948	-0.311989	-0.0183928	-0.3246793	0.9999948	0.999984	1.0000284	0.9999976	0.9999898
37	PT Daya Sakti Unggul Corporation Tbk	-0.0671877	0.2287669	-0.1077019	-0.03359	-0.0457653	1.0000028	0.9999933	0.999992	1.000009	0.9999552
38	PT Sumalindo Lestari Jaya Tbk	0.0303023	0.1540152	-0.0216518	-0.1857623	-0.0245806	0.9999991	0.9999975	0.9999996	1.0000107	0.9999996
39	PT Surya Dumai Industri Tbk	0.0670838	-0.0544598	0.1647231	-0.3090258	-0.2449758	0.9999953	1.0000035	1.0000094	1.0000551	0.9999946
40	PT Tirta Mahakam Plywood Industry Tbk	0.1740621	0.2624819	0.0122639	0.0621995	0.7836777	0.9999879	0.9999884	0.9999997	1.0000168	1.0002485
41	PT Fajar Surya Wisesa Tbk	0.1954595	0.0267926	-0.0113991	0.0660222	0.1370212	1.0000034	0.9999995	0.9999982	1.0000395	0.9999887
42	PT Indah Kiat Pulp & Paper Corporation Tbk	0.7584084	-0.0199526	-0.0208683	0.0943526	0.1235553	0.9999988	1	1	0.9999999	0.9999991
43	PT Pabrik Kertas Tjiwi Kimia Tbk	0.7676191	-0.219315	-0.0439326	0.0398363	0.1347303	0.9999068	1.0000003	0.9999999	0.9999994	1.000001
44	PT Suparma Tbk	0.1456095	-0.0136329	-0.0851402	0.1533893	0.1470976	1.0000116	0.9999995	0.9999964	0.9998493	0.9999942
45	PT Surabaya Agung Industry Pulp Tbk	0.0824509	-0.0692366	-0.1204673	-0.2417955	-0.2553339	1.0000053	1.000009	1.0000029	0.9999235	0.9999956
46	PT Budi Acid Jaya Tbk	0.0733839	-0.3657783	0.8356489	-0.1910626	0.4204501	0.9999904	1.0000199	0.9998981	0.9999882	0.999994
47	PT Colorpak Indonesia Tbk	0	0.2746306	-0.1465333	0.2614687	1.2994617	0	0.999942	0.9997974	0.9998818	0.9930249
48	PT Eterindo Wahanatama Tbk	0.2342284	-0.0226221	0.0372229	-0.5762435	-0.8061056	0.9999967	1.0000015	1.0000021	1.000009	0.9999964
49	PT Polysindo Eka Perkasa Tbk	0.2512516	0.1543192	-0.0450046	-0.3945285	-0.2820994	0.9999895	0.9999988	1.0000005	0.999997	0.9999987
50	PT Sorini Corporation Tbk	0.1623984	0.2095123	0.1158612	-0.0484161	0.0276144	1.000011	0.9999964	0.9999832	0.999979	0.999999
51	PT Unggul Indah Cahaya Tbk	0.5115309	0.1595302	-0.163848	0.4483055	0.3021436	0.9999877	0.9999983	1.0000008	1.0000032	1.0000043
52	PT Duta Pertiwi Nusantara Tbk	0.1145218	0.410991	-0.2621085	0.3932359	0.0497205	1.0000984	0.9999373	0.9999107	0.9997535	1.0000177
53	PT Ekadharma Tape Industries Tbk	-0.0766908	0.0016806	-0.0870932	0.0536947	-0.0356851	1.0000186	0.9999995	0.9999878	0.9999799	1.0000358
54	PT Intan Wijaya International Tbk	0.0009577	0.2737359	-0.089818	1.0461449	0.1188449	0.9999991	0.9999068	0.9999073	0.9997711	1.0000201
55	PT Resource Alam Indonesia Tbk (Kurnia Kapuas Utama Glue Industries) Tbk	0.153342	0.1688371	-0.0506246	-0.0412173	0.0381562	1.000019	0.9999599	0.9983154	0.9999929	0.9999897

56	PT Argha Karya Prima Industry Tbk	0.2545373	0.1792472	0.047607	-0.0154255	0.1795091	1.0000249	0.9999947	1.0000035	1.0000007	0.9999706
57	PT Asahimas Flat Glass Co Ltd Tbk	0.0146869	0.2453368	0.1495132	0.0748538	0.0276281	1.0000002	0.9999966	1.0000039	0.9999924	0.9999985
58	PT Asiaplast Industries Tbk	0.9088122	0.2547409	0.2084667	-0.1761329	0.5250722	0.9997157	0.9999656	0.9999845	0.9999667	0.9999309
59	PT Berlina Co Ltd Tbk	0.4791303	0.3139523	0.0936347	0.0591449	0.2359065	0.9999154	0.9999451	0.9985159	0.9999843	1.0000668
60	PT Dynaplast Tbk	0.5228037	0.2804503	0.1215696	0.3747889	0.3248232	1.0013458	0.9999837	1.0001411	0.999738	0.9999832
61	PT Kageo Igar Jaya Tbk (Igarjaya)	0.3287629	0.2448803	0.0938527	-0.0740255	0.0997797	0.9999817	0.9999877	1.0000161	1.0000553	1.000005
62	PT Langgeng Makmur Plastik Industry Ltd Tbk	0.2724704	0.2522148	0.0635579	0.1237544	0.0018147	0.9999771	0.9999763	1.0000398	0.9999945	0.9999958
63	PT Lapindo International Tbk	0.1893914	0.7197446	0.1945733	1.4633243	0.566679	0.999401	1.0066471	0.9997026	0.9981105	0.9999027
64	PT Summiplast Interbenua Tbk	0.3082942	-0.0692464	-0.0463033	0.2430954	0.3121892	1.000166	1.0000118	0.9999966	0.999865	0.9998566
65	PT Trias Sentosa Tbk	0.0740573	0.4411969	0.048337	0.0832317	0.2336182	1.0000031	0.9999908	1.0000256	1.0000062	0.9999933
66	PT Indocement Tunggal Perkasa Tbk	0.2806934	0.6470493	0.1171042	0.042817	0.1197268	0.9999709	0.9999934	0.9999996	0.9999991	1.0000007
67	PT Semen Cibinong Tbk	0.2534305	0.238295	0.1162394	0.0195382	0.0898791	0.9999846	0.9999717	1.0000016	1.0000022	0.9999926
68	PT Semen Gresik (Persero) Tbk	0.181288	0.2986439	-0.1135502	0.382943	0.1420233	1.0000031	0.9999976	1.0000011	0.9999954	1.0000017
69	PT Alumindo Light Metal Industry Tbk	0.3603552	0.0276344	-0.077818	0.1064106	0.2142077	0.9999959	0.9999994	1.0000018	1.0000013	0.9999979
70	PT Betonjaya Manunggal Tbk	-0.0794956	0.0495728	0.2699646	-0.1562515	1.3652709	1.0002092	0.9999017	0.9996531	0.9985943	1.0016377
71	PT Citra Tubindo Tbk	0.443004	1.1318083	-0.0411327	0.6800199	0.1012368	0.9999975	1.0000064	1.0000034	0.999969	1.0000061
72	PT Indal Aluminium Industry Tbk	0.2125094	0.4756229	-0.1285335	0.1445018	0.4940909	0.9999421	0.9999899	0.9999962	0.9999943	1.0000519
73	PT Jakarta Kyoei Steel Works Ltd Tbk	-0.5491044	0.5777919	4.3451157	-0.4014767	-0.3406031	0.9999891	1.0000618	0.9997667	1.0001072	0.9998947
74	PT Jaya Pari Steel Tbk	0.4965652	-0.3321008	1.7868861	-0.0219432	0.4059037	1.0000189	1.0001068	0.9997931	1.0000015	0.9998916
75	PT Lion Mesh Prima Tbk	0.5266188	0.2033342	0.2115376	0.1137148	0.283454	1.0005512	0.9997837	0.9999061	1.0001723	1.0010471
76	PT Lion Metal Works Tbk	0.6681954	0.2622221	0.1558039	0.0268128	0.162022	3.0138221	1.0003858	0.9999855	0.9999914	1.0000376
77	PT Pelangi Indah Canindo Tbk	-0.102957	0.0931063	0.1287943	0.0080922	0.0317596	0.9999868	0.9999783	0.9999871	0.9999986	0.9999955
78	PT Tembaga Mulia Semanan Tbk	0.4275518	0.4125361	-0.0463479	0.0756728	0.7946947	0.9999711	0.9999831	1.0000027	0.9999956	1.000018
79	PT Kedaung Indah Can Tbk	-0.0120084	-0.0006714	-0.0311692	0.0008463	-0.0138116	0.9999885	1.0000001	1.0000091	0.9999997	0.999999
80	PT Kedawung Setia Industrial Tbk	0.7659429	0.0811985	0.2408729	-0.009427	0.0483617	1.0000729	0.9999963	0.9999579	1.0000006	1.0000079
81	PT Arwana Citra Mulia Tbk	0.2725689	-0.3152942	0.3538073	0.1658385	0.0989429	0.9999931	1.0000146	1.0000029	0.9999704	1.0000708
82	PT Intikeramik Alamasri Industry Tbk	0.2725689	0.3528561	0.1121731	0.0109116	0.0274685	0.9999931	0.9999837	0.9999956	1.0000014	1.0000023
83	PT Mulia Industrindo Tbk	0.0981145	0.2055177	0.1850251	0.1607412	0.0841911	1.0000068	0.9999952	0.9999992	0.9999986	1.0000007
84	PT Surya Toto Indonesia Tbk	0.4929493	0.2793614	0.0052064	0.1946565	0.24884	1.0001213	0.9999905	0.9999997	0.9999661	0.9999672
85	PT GL Kabel Indonesia Tbk	0.2008344	0.4225115	0.0525313	0.0247547	0.2146195	1.0000046	0.9999836	0.9999967	1.0000013	1.0000085
86	PT Jembo Cable Company Tbk	0.1681857	0.6379481	-0.0713875	0.1142934	0.2268514	0.9999913	1.0002452	1.0000267	0.9999951	1.0000088
87	PT Kabelindo Murni Tbk	-0.0273693	0.5533374	0.2679867	0.1278126	0.3549006	0.9999958	1.0002671	1.0001363	1.0000277	1.0000633
88	PT Sumi Indo Kabel Tbk	0.8539496	0.1946167	-0.1862934	0.0542055	0.650511	0.9999348	1.0005727	1.0000431	1.0000402	1.0000383

89	PT Supreme Cable Manufacturing Corporation (Sucaco) Tbk	0.4523904	0.4656077	-0.196207	0.2053717	0.6909136	1.0000185	1.0000261	0.9999909	0.9999954	0.9999738
90	PT Voksel Electric Tbk										
91	PT Andhi Chandra Automotive Products Tbk	0.2726872	0.2116729	0.1882234	-0.1677529	0.3631356	1.0000239	0.9999906	1.0000128	0.99992	1.0000195
92	PT Astra International Tbk	0.9395057	0.3711314	-0.1443543	0.0877323	0.3181446	0.999881	0.9999711	0.9999829	0.9997171	0.9999264
93	PT Astra Otoparts Tbk	1.0919189	0.0507418	-0.0165961	-0.0094045	0.4278684	1.0000041	1	0.9999982	1	1.0000005
94	PT Branta Mulia Tbk	0.3183395	0.0305405	-0.0154124	0.0479621	0.3512059	1.0000045	0.9999997	0.9999996	0.9999989	1.0000629
95	PT Gajah Tunggal Tbk	0.5099173	0.1991432	0.0438981	0.0004514	0.1839808	1.0000108	0.9999991	1.0000004	1	0.9999915
96	PT Goodyear Indonesia Tbk	0.3733939	0.172636	0.0121238	0.0307512	0.1699388	0.9999964	0.9999992	0.9999998	1.0000002	0.9999954
97	PT Indospring Tbk	0.1480534	0.2456567	-0.083947	0.0503475	0.2987118	1.0000443	0.9999907	0.9999954	0.999992	1.0000913
98	PT Multi Prima Sejahtera Tbk	0.8968204	0.3409747	0.1936476	0.0966918	0.4046081	1.0000452	0.9999743	0.9999701	1.0000197	0.9999779
99	PT Prima Alloy Steel Tbk	-0.3894559	0.1308101	-0.0963228	-0.2017497	0.3056057	0.9999537	0.9999647	1.0000174	0.999838	1.000101
100	PT Selamat Sempurna Tbk	0.0417317	0.1109135	0.2232456	0.9163674	0.4283267	1.0000013	0.9999869	0.9998259	1.0003375	1.0012996
101	PT Bristol-Myers Squibb Indonesia Tbk	0.4947386	0.1100835	0.1419211	0.0481968	0.1499689	0.9999789	0.9999958	1.0000135	0.9999916	0.9999963
102	PT Darya-Varia Laboratoria Tbk	0.0465951	-0.8783881	0.0720484	-0.1276489	-0.0376428	0.9999985	1.0000207	1.0000004	1.0000108	0.9999983
103	PT Indofarma (Persero) Tbk	0.2265429	0.1923601	0.0132587	-0.5432771	0.1165081	0.9996365	0.9999883	0.9999974	0.99999	0.999981
104	PT Kalbe Farma Tbk	0.0517372	0.4112024	0.8124589	-0.3602055	0.3088192	1.0000024	0.9999939	0.9999933	1.000075	1.0000022
105	PT Kimia Farma (Persero) Tbk	0.3403423	0.4526274	0.1359301	0.0518265	0.1577924	0.9999952	0.9999938	0.9999979	1.000005	1.0000064
106	PT Merck Tbk	0.3648318	-0.0130029	0.1500502	0.1647326	0.0044296	0.9999957	0.9999993	1.000033	1.0000122	0.9999999
107	PT Pyridam Farma Tbk	0.3896743	0.1705706	0.0033086	0.3072188	0.3949581	0.9999511	0.9999857	0.9999991	0.999966	0.9998515
108	PT Schering Plough Indonesia Tbk	0	-0.3916583	-0.0214124	0.0796339	0.2896814	0	1.0001656	1.0000062	1.0001268	0.999019
109	PT Tempo Scan Pacific Tbk	0.01166	0.2883512	-0.0481719	0.0443105	-0.1940147	0.9999983	1.0011018	1.0000203	1.000009	1.0001817
110	PT Mandom Indonesia Tbk	0.0465951	0.2616725	0.1278603	0.060101	0.1265276	0.9999985	0.9999938	0.999997	1.0000028	0.9999906
111	PT Mustika Ratu Tbk	0.2536504	0.2001411	0.0153334	0.0755564	0.2476734	0.9999863	1.0000028	0.9999999	1.0000216	1.000043
112	PT Unilever Indonesia Tbk	0.4326342	0.0085476	0.1117286	-0.0869163	0.1329987	1.0002541	1.0000117	0.9999886	1.0000241	1.0000203
		0.1006159	0.2416742	0.1319883	0.0713502	0.1046394	0.9999939	1.0000094	1.0000012	0.9999991	0.9999992

TABLE B.1

SUMMARY RESULT OF DUMMIES FOR GROUPING SAMPLE FIRMS

No.	Firm	D04	D03	DM03	DM04
1	PT Ades Alfindo Putrasetia Tbk	0.4983374	0.9259069	1	1
2	PT Aqua Golden Mississippi Tbk	0.0717856	-0.1781063	0	1
3	PT Cahaya Kalbar Tbk	0.0311275	0.0927236	1	1
4	PT Davomas Abadi Tbk	0.23977	-0.3531798	0	1
5	PT Delta Djakarta Tbk	-0.0892867	0.0681735	1	0
6	PT Indofood Sukses Makmur Tbk	-0.6134868	-0.940009	0	0
7	PT Mayora Indah Tbk	-0.9405446	-0.0939299	0	0
8	PT Multi Bintang Indonesia Tbk	-0.941068	-0.6312361	0	0
9	PT Prasidha Aneka Niaga Tbk	-0.0971513	0.0727825	1	0
10	PT Sari Husada Tbk	-0.928319	-0.9943991	0	0
11	PT Sekar Laut Tbk	0.711621	0.6991705	1	1
12	PT Siantar Top Tbk	-0.6785305	-0.8319962	0	0
13	PT Sierad Produce Tbk	0.0843676	-0.8213537	0	1
14	PT Sinar Mas Agro Resources and Technology Corporation (SMART) Tbk	0.6390816	0.8928078	1	1
15	PT Suba Indah Tbk	-0.8809803	0.0108177	1	0
16	PT Tiga Pilar Sejahtera Tbk (Asia Intiselera)	0.8114734	0.6891356	1	1
17	PT Tunas Baru Lampung Tbk	-0.1881661	-0.7496181	0	0
18	PT Ultra Jaya Milk Industry and Trading Company Tbk	0.7217539	0.7566608	1	1
19	PT BAT Indonesia Tbk	-0.424179	-0.8966429	0	0
20	PT Gudang Garam Tbk	0.4774332	0.7912902	1	1
21	PT Hanjaya Mandala Sampoerna Tbk	-0.7510152	-0.8502916	0	0
22	PT Argo Pantes Tbk	-0.7909082	-0.4848214	0	0
23	PT Eratex Djaja Limited Tbk	0.9404638	0.6952865	1	1
24	PT Panasia Filament Inti Tbk	0.418274	0.4542168	1	1

25	PT Roda Vivatex Tbk	0.9745516	0.6773996	1	1
26	PT Sunson Textile Manufacture Tbk	0.4120415	0.1318486	1	1
27	PT Teijin Indonesia Fiber Corporation (Tifico) Tbk	0.2213113	-0.9453741	0	1
28	PT APAC Citra Centertex Tbk	0.1808971	0.279533	1	1
29	PT Daeyu Orchid Indonesia Tbk	0.306133	0.8921853	1	1
30	PT Ever Shine Textile Industry Tbk	0.7361198	-0.8315371	0	1
31	PT Indorama Syntetics Tbk	-0.9877102	-0.938874	0	0
32	PT Karwell Indonesia Tbk	0.8395544	0.8191033	1	1
33	PT Ricky Putra Globalindo Tbk	0.2236053	0.5975327	1	1
34	PT Sarasa Nugraha Tbk	0.3301981	-0.8609663	0	1
35	PT Sepatu Bata Tbk	0.5195609	0.3854746	1	1
36	PT Surya Intrindo Makmur Tbk	-0.5901231	-0.9197314	0	0
37	PT Daya Sakti Unggul Corporation Tbk	0.1568374	-0.3114642	0	1
38	PT Sumalindo Lestari Jaya Tbk	-0.8876943	-0.9208241	0	0
39	PT Surya Dumai Industri Tbk	-0.4293803	-0.8445306	0	0
40	PT Tirta Mahakam Plywood Industry Tbk	0.9281046	-0.6983113	0	1
41	PT Fajar Surya Wisesa Tbk	-0.0807824	0.0881463	1	0
42	PT Indah Kiat Pulp & Paper Corporation Tbk	-0.8092299	-0.9993867	0	0
43	PT Pabrik Kertas Tjiwi Kimia Tbk	0.2209301	-0.9704156	0	1
44	PT Suparma Tbk	-0.5914183	-0.5101403	0	0
45	PT Surabaya Agung Industry Pulp Tbk	0.6215766	0.770471	1	1
46	PT Budi Acid Jaya Tbk	-0.8514003	-0.9753464	0	0
47	PT Colorpak Indonesia Tbk	-0.9432018	0.3152724	1	0
48	PT Eterindo Wahanatama Tbk	0.1273938	-0.9775245	0	1
49	PT Polysindo Eka Perkasa Tbk	0.6147542	-0.4226212	0	1
50	PT Sorini Corporation Tbk	0.4650715	0.7082058	1	1
51	PT Unggul Indah Cahaya Tbk	0.5212336	-0.4538425	0	1
52	PT Duta Pertiwi Nusantara Tbk	-0.396171	-0.2905603	0	0
53	PT Ekadharma Tape Industries Tbk	-0.2832142	-0.5429901	0	0
54	PT Intan Wijaya International Tbk	-0.8000727	-0.8851919	0	0
55	PT Resource Alam Indonesia Tbk (Kurnia Kapuas Utama Glue Industries) Tbk	0.5069622	0.5991369	1	1
56	PT Argha Karya Prima Industry Tbk	-0.7054868	0.5717778	1	0

57	PT Asahimas Flat Glass Co Ltd Tbk	0.1457405	0.0076667	1	1
58	PT Asiaplast Industries Tbk	-0.5904012	-0.8905681	0	0
59	PT Berlina Co Ltd Tbk	0.4492558	0.4478589	1	1
60	PT Dynaplast Tbk	-0.8889969	0.6238744	1	0
61	PT Kageo Igar Jaya Tbk (Igarjaya)	-0.9750569	-0.9884735	0	0
62	PT Langgeng Makmur Plastik Industry Ltd Tbk	-0.5596568	-0.9083035	0	0
63	PT Lapindo International Tbk	-0.2155123	-0.090663	0	0
64	PT Summiplast Interbenua Tbk	-0.9943795	0.1865788	1	0
65	PT Trias Sentosa Tbk	-0.8279156	-0.7707004	0	0
66	PT Indocement Tunggal Perkasa Tbk	-0.950894	-0.2267039	0	0
67	PT Semen Cibinong Tbk	-0.891957	-0.8549313	0	0
68	PT Semen Gresik (Persero) Tbk	-0.8276014	-0.671348	0	0
69	PT Alumindo Light Metal Industry Tbk	-0.7374856	-0.8833645	0	0
70	PT Betonjaya Manunggal Tbk	0.9499178	0.3539254	1	1
71	PT Citra Tubindo Tbk	-0.2124677	-0.0779943	0	0
72	PT Indal Aluminium Industry Tbk	0.4804459	-0.1967407	0	1
73	PT Jakarta Kyoei Steel Works Ltd Tbk	-0.7656192	-0.9062265	0	0
74	PT Jaya Pari Steel Tbk	-0.9300001	-0.959259	0	0
75	PT Lion Mesh Prima Tbk	0.5713275	0.7435335	1	1
76	PT Lion Metal Works Tbk	0.7926122	0.9378354	1	1
77	PT Pelangi Indah Canindo Tbk	-0.7824624	-0.3007135	0	0
78	PT Tembaga Mulia Semanan Tbk	0.4270006	-0.9449101	0	1
79	PT Kedaung Indah Can Tbk	-0.8554911	-0.4655049	0	0
80	PT Kedawung Setia Industrial Tbk	-0.9313129	0.760073	1	0
81	PT Arwana Citra Mulia Tbk	-0.1671711	-0.4802416	0	0
82	PT Intikeramik Alamasri Industry Tbk	-0.9938326	-0.9397704	0	0
83	PT Mulia Industrindo Tbk	-0.8135361	-0.9656068	0	0
84	PT Surya Toto Indonesia Tbk	-0.5612444	0.7526856	1	0
85	PT GL Kabel Indonesia Tbk	-0.6061654	-0.7428905	0	0
86	PT Jembo Cable Company Tbk	0.8766418	0.8882578	1	1
87	PT Kabelindo Murni Tbk	0.8694553	0.9867165	1	1
88	PT Sumi Indo Kabel Tbk	0.0239787	-0.22223	0	1
89	PT Supreme Cable Manufacturing	-0.0432291	0.8887854	1	0

	Corporation (Sucaco) Tbk				
90	PT Voksel Electric Tbk	0.9579387	0.9687744	1	1
91	PT Andhi Chandra Automotive Products Tbk	0.0817231	-0.0257528	0	1
92	PT Astra International Tbk	0.6285889	0.9534615	1	1
93	PT Astra Otoparts Tbk	0.985927	0.9589874	1	1
94	PT Branta Mulia Tbk	-0.6112334	0.8911265	1	0
95	PT Gajah Tunggal Tbk	-0.6868747	-0.9655089	0	0
96	PT Goodyear Indonesia Tbk	0.6149873	0.2050597	1	1
97	PT Indospring Tbk	-0.6811006	0.6242592	1	0
98	PT Multi Prima Sejahtera Tbk	0.7963183	0.2626912	1	1
99	PT Prima Alloy Steel Tbk	0.3076463	0.8475294	1	1
100	PT Selamat Sempurna Tbk	0.6001788	-0.6236314	0	1
101	PT Bristol-Myers Squibb Indonesia Tbk	-0.9089498	-0.9352705	0	0
102	PT Darya-Varia Laboratoria Tbk	-0.2187043	-0.4738353	0	0
103	PT Indofarma (Persero) Tbk	-0.9220612	-0.8371179	0	0
104	PT Kalbe Farma Tbk	-0.7813356	-0.9011852	0	0
105	PT Kimia Farma (Persero) Tbk	0.8046917	-0.1654592	0	1
106	PT Merck Tbk	-0.816771	-0.9849778	0	0
107	PT Pyridam Farma Tbk	-0.744379	-0.2646	0	0
108	PT Schering Plough Indonesia Tbk	0.7956036	0.9630107	1	1
109	PT Tempo Scan Pacific Tbk	-0.5686404	-0.8378755	0	0
110	PT Mandom Indonesia Tbk	0.5874593	-0.5687864	0	1
111	PT Mustika Ratu Tbk	-0.5012034	0.8845662	1	0
112	PT Unilever Indonesia Tbk	0.979815	0.8747405	1	1

APPENDIX 4
LISTS OF DUMMIES FOR STOCK PRICE, EARNINGS, GROSS PROFIT, SELLING&ADMINISTRATIVE EXPENSE & INVENTORY METHOD OF SAMPLE FIRMS

TABLE C.1

THE SUMMARY OF DUMMIES DURING 2003 – 2004

No	firms	Closing Price per Share (PRICE)			
		P03	P04	Pt-Pt103	Pt-Pt104
1	PT Ades Alfindo Putrasetia Tbk	0.4811899	0.8213985	-0.5249344	0.3580455
2	PT Aqua Golden Mississippi Tbk	2.3847851	2.3113941	0.1192393	0.3670037
3	PT Cahaya Kalbar Tbk	0.2883355	0.3315995	0.0393185	0.0455137
4	PT Davomas Abadi Tbk	0.2487562	1.0294118	-0.4975124	0.8193277
5	PT Delta Djakarta Tbk	0.4883872	0.5144537	-0.010853	0.0734934
6	PT Indofood Sukses Makmur Tbk	1.5384615	1.7857143	-0.5769231	0.4032258
7	PT Mayora Indah Tbk	0.376677	0.9189444	-0.0567595	0.5749293
8	PT Multi Bintang Indonesia Tbk	2.2339713	3.1411968	-0.3164793	0.7852992
9	PT Prasidha Aneka Niaga Tbk	-0.0308794	-0.4512635	0	0
10	PT Sari Husada Tbk	2.248707	3.4309946	-0.0562177	1.5034695
11	PT Sekar Laut Tbk	-0.0599782	-0.1125366	0.0272628	-0.0506415
12	PT Siantar Top Tbk	1.0436893	0.8078603	-0.2669903	-0.1310044
13	PT Sierad Produce Tbk	2	0.8928571	-2.5	0.1785714
14	PT Sinar Mas Agro Resources and Technology Corporation (SMART) Tbk	-1	-3.4037559	-0.1777778	-2.0833333
15	PT Suba Indah Tbk	0.013412	0.0921829	-0.0080472	0.0737463
16	PT Tiga Pilar Sejahtera Tbk (Asia Intiselera)	-4.0019403	2.1442709	-2.0009702	-1.4844953
17	PT Tunas Baru Lampung Tbk	0.4487179	0.5466238	-0.4807692	0.096463
18	PT Ultra Jaya Milk Industry and Trading Company Tbk	1.8315018	1.0137457	-0.9157509	-0.7044674
19	PT BAT Indonesia Tbk	1.4929026	1.4360107	0.2039484	-0.0078902
20	PT Gudang Garam Tbk	1.4665081	2.2799018	-0.7035275	0.9821115
21	PT Hanjaya Mandala Sampoerna Tbk	2.5086505	3.5101404	-1.4489619	1.2480499
22	PT Argo Pantes Tbk	-14.893617	-182.14286	0	-82.142857
23	PT Eratex Djaja Limited Tbk	0.2688172	0.8196721	-0.3494624	0
24	PT Panasia Filament Inti Tbk	0.1386139	0.1343284	-0.2475248	-0.0746269
25	PT Roda Vivatex Tbk	1.0626993	0.8817427	-0.1328374	-0.1556017
26	PT Sunson Textile Manufacture Tbk	0.5208333	0.2832512	-0.4613095	-0.1477833

27	PT Teijin Indonesia Fiber Corporation (Tifico) Tbk	0.3095685	0.3026482	-0.2532833	0.0945776
28	PT APAC Citra Centertex Tbk	-0.3526971	0.2354571	0.5186722	0.1177285
29	PT Daeyu Orchid Indonesia Tbk	0.4724409	0.6299213	-0.3149606	0.1574803
30	PT Ever Shine Textile Industry Tbk	0.5181347	0.7022472	-1.2176166	0.1404494
31	PT Indorama Syntetics Tbk	0.1362309	0.1527871	-0.0989296	0.0117529
32	PT Karwell Indonesia Tbk	2.8225806	5.060241	-0.8467742	0.8433735
33	PT Ricky Putra Globalindo Tbk	1.3235294	6.9565217	-3.3823529	5.9782609
34	PT Sarasa Nugraha Tbk	1.1111111	1.2962963	-1.6666667	-0.1851852
35	PT Sepatu Bata Tbk	1.2202563	1.2308197	-0.2179029	0.0820546
36	PT Surya Intrindo Makmur Tbk	3.2608696	2.5316456	-5.4347826	-2.2151899
37	PT Daya Sakti Unggul Corporation Tbk	0.3409091	0.7692308	-0.0909091	0.3254438
38	PT Sumalindo Lestari Jaya Tbk	-0.1097973	-0.1190476	0.0675676	-0.0487013
39	PT Surya Dumai Industri Tbk	-1.4735099	-4.5294118	0.1821192	0.7058824
40	PT Tirta Mahakam Plywood Industry Tbk	0.4679803	0.5699482	-0.270936	0.0777202
41	PT Fajar Surya Wisesa Tbk	0.8312958	1.7401392	-0.2444988	0.9512761
42	PT Indah Kiat Pulp & Paper Corporation Tbk	0.0653491	0.3059613	-0.0079694	0.2250296
43	PT Pabrik Kertas Tjiwi Kimia Tbk	0.0756776	0.2925632	0.0070398	0.2114005
44	PT Suparma Tbk	0.3537736	0.8482143	-0.0471698	0.5133929
45	PT Surabaya Agung Industry Pulp Tbk	-0.0142669	-0.013716	0.0021949	0
46	PT Budi Acid Jaya Tbk	0.6766917	0.7352941	-0.3383459	0.0735294
47	PT Colorpak Indonesia Tbk	2.4496644	3.0967742	-0.5704698	0.7419355
48	PT Eterindo Wahanatama Tbk	-0.1994302	0.4814815	0.014245	0.308642
49	PT Polysindo Eka Perkasa Tbk	-0.0086157	-0.0324149	0.0114877	-0.0243112
50	PT Sorini Corporation Tbk	0.2813853	0.477707	-0.0613276	0.2292994
51	PT Unggul Indah Cahaya Tbk	0.5389515	0.9444697	-0.0979912	0.443787
52	PT Duta Pertiwi Nusantara Tbk	0.2290951	0.2682927	-0.2462772	0.0243902
53	PT Ekadharma Tape Industries Tbk	0.4511971	0.148248	-0.0552486	-0.2920036
54	PT Intan Wijaya International Tbk	0.3284672	0.355064	-0.2737226	0.0407451
55	PT Resource Alam Indonesia Tbk (Kurnia Kapuas Utama Glue Industries) Tbk	0.1604278	0.2877698	-0.2673797	0.1258993
56	PT Argha Karya Prima Industry Tbk	-0.261959	0.929368	-0.0113895	0.6443618
57	PT Asahimas Flat Glass Co Ltd Tbk	0.687799	1.1633789	-0.0448565	0.5816894
58	PT Asiaplast Industries Tbk	0.1769912	0.3097345	-0.2212389	0.1327434
59	PT Berlina Co Ltd Tbk	0.6766554	0.6365452	-0.0483325	-0.0624064

60	PT Dynaplast Tbk	0.9259259	1.4581572	-0.2136752	0.6339814
61	PT Kageo Igar Jaya Tbk (Igarjaya)	0.6896552	0.9160305	0	0.3053435
62	PT Langgeng Makmur Plastik Industry Ltd Tbk	0.2941176	1.8965517	-0.3781513	0.6896552
63	PT Lapindo International Tbk	4.5652174	5.5851064	-1.4130435	1.1170213
64	PT Summiplast Interbenua Tbk	1.2781955	1.1111111	-0.3007519	-0.1481481
65	PT Trias Sentosa Tbk	0.5357143	0.6617647	0.1785714	0.1764706
66	PT Indocement Tunggal Perkasa Tbk	0.7971014	1.5422078	-0.0241546	0.8725649
67	PT Semen Cibinong Tbk	0.4587156	1.0806916	-0.5198777	0.648415
68	PT Semen Gresik (Persero) Tbk	1.3705016	1.6798919	-0.2051091	0.4389667
69	PT Alumindo Light Metal Industry Tbk	0.1288889	0.2333664	-0.4266667	0.0893744
70	PT Betonjaya Manunggal Tbk	1.0330579	1.6666667	-0.1239669	0.625
71	PT Citra Tubindo Tbk	1.2935883	1.2767316	0.0241041	-0.0079796
72	PT Indal Aluminium Industry Tbk	0.1848875	0.4032258	-0.3135048	0.094086
73	PT Jakarta Kyoei Steel Works Ltd Tbk	-0.008261	-0.0577101	0.0061958	-0.0484765
74	PT Jaya Pari Steel Tbk	0.3104213	0.8536585	0.0886918	0.5432373
75	PT Lion Mesh Prima Tbk	0.2986348	0.7272013	-0.1493174	0.452044
76	PT Lion Metal Works Tbk	0.4678041	0.4733879	0.0687947	0.0383828
77	PT Pelangi Indah Canindo Tbk	-0.0523104	2.1052632	0.1002616	1.3157895
78	PT Tembaga Mulia Semanan Tbk	0.439115	0.3652533	-0.0253336	-0.0476417
79	PT Kedaung Indah Can Tbk	0.4030501	0.1865672	0.0217865	-0.2736318
80	PT Kedawung Setia Industrial Tbk	0.3519417	0.4310345	-0.3398058	0.0143678
81	PT Arwana Citra Mulia Tbk	0.766129	2.0921986	-0.0806452	1.4184397
82	PT Intikeramik Alamasri Industry Tbk	0.2730375	0.6553398	-0.1535836	0.2669903
83	PT Mulia Industrindo Tbk	-0.1375	-0.2662407	0.05625	-0.1490948
84	PT Surya Toto Indonesia Tbk	2.5357308	1.7056343	0	-0.402453
85	PT GL Kabel Indonesia Tbk	0.2525253	2.8571429	-0.1515152	1.0714286
86	PT Jembo Cable Company Tbk	1.8023256	0.556872	0.4069767	-1.2796209
87	PT Kabelindo Murni Tbk	0.308642	0.6198347	-0.2469136	0.2066116
88	PT Sumi Indo Kabel Tbk	0.2876318	0.3956479	-0.4074784	0.098912
89	PT Supreme Cable Manufacturing Corporation (Sucaco) Tbk	0.8084074	0.8128469	0.0606306	0.0198255
90	PT Voksel Electric Tbk	-0.1664145	-0.1311475	0.0605144	-0.010929
91	PT Andhi Chandra Automotive Products Tbk	3.1418919	3.1045752	0.8445946	0.0653595
92	PT Astra International Tbk	1.0232745	1.8435562	-0.0601926	0.9648518

93	PT Astra Otoparts Tbk	0.8954155	0.8375474	-0.2507163	0.0474083
94	PT Branta Mulia Tbk	0.4385965	0.5661713	-0.199362	0.1769285
95	PT Gajah Tunggal Tbk	1.4482759	1.4319809	0.2758621	0.9307876
96	PT Goodyear Indonesia Tbk	0.6264324	0.613591	-0.0611154	-0.0153398
97	PT Indospring Tbk	0.3837719	0.3388947	0.095943	-0.0260688
98	PT Multi Prima Sejahtera Tbk	0.8141113	0.2804378	0.0678426	0.1162791
99	PT Prima Alloy Steel Tbk	0.3177005	0.3295572	-0.0907716	0.1132853
100	PT Selamat Sempurna Tbk	5.5970149	0.9818182	-0.8395522	-4.4727273
101	PT Bristol-Myers Squibb Indonesia Tbk	1.1298132	1.3829787	-0.0807009	0.5141844
102	PT Darya-Varia Laboratoria Tbk	1.6009852	1.6112266	0.5541872	0.2598753
103	PT Indofarma (Persero) Tbk	1.5873016	2	-0.2777778	-0.5
104	PT Kalbe Farma Tbk	2.5206612	4.6568627	-0.1652893	1.6666667
105	PT Kimia Farma (Persero) Tbk	1.352459	1.3602941	-0.5327869	0.1470588
106	PT Merck Tbk	1.3507429	2.949024	-0.5703137	1.6851566
107	PT Pyridam Farma Tbk	2.4553571	0.5309735	-0.3125	-1.9026549
108	PT Schering Plough Indonesia Tbk	7.6271186	16.908213	-10.451977	6.0386473
109	PT Tempo Scan Pacific Tbk	1.4622194	1.5024559	-0.071135	0.166137
110	PT Mandom Indonesia Tbk	0.8354756	1.2580055	-0.2442159	0.5146386
111	PT Mustika Ratu Tbk	0.9358289	0.8563536	-2.228164	-0.1104972
112	PT Unilever Indonesia Tbk	6.8001511	12.909091	-0.9444654	-52.545455

TABLE C.2

THE SUMMARY OF DUMMIES DURING 2003 – 2004

No	firms	Earnings			
		E03	E04	Et-Et103	Et-Et104
1	PT Ades Alfindo Putrasetia Tbk	0.040245	-0.8348778	-0.0446194	-0.873631
2	PT Aqua Golden Mississippi Tbk	0.2811662	0.3384212	-0.0183032	0.1091775
3	PT Cahaya Kalbar Tbk	0.0144168	-0.1014304	-0.0288336	-0.1157347
4	PT Davomas Abadi Tbk	0.1840796	0.0336134	0.1393035	-0.1218487
5	PT Delta Djakarta Tbk	0.1292598	0.1184223	-0.0226829	0.0017148
6	PT Indofood Sukses Makmur Tbk	0.1641026	0.0921659	-0.0564103	-0.0552995
7	PT Mayora Indah Tbk	0.1135191	0.1046183	-0.0474716	0.0009425
8	PT Multi Bintang Indonesia Tbk	0.3188622	0.3216586	0.0182441	-0.0146066
9	PT Prasidha Aneka Niaga Tbk	-0.5625	-0.0108303	-0.8283103	8.2093863
10	PT Sari Husada Tbk	0.2633236	0.1779106	0.0517203	-0.0478026
11	PT Sekar Laut Tbk	-0.0307525	0.1269413	0.0907306	0.1586766
12	PT Siantar Top Tbk	0.1165049	0.0960699	0.0048544	-0.0087336
13	PT Sierad Produce Tbk	-1.5	-7.6071429	-0.5	-7.0714286
14	PT Sinar Mas Agro Resources and Technology Corporation (SMART) Tbk	-0.208	0.4260563	0.6328889	0.7007042
15	PT Suba Indah Tbk	-0.2725322	-0.3355457	-0.2280043	0.0390855
16	PT Tiga Pilar Sejahtera Tbk (Asia Intiselera)	0.0970167	0.073565	2.5345622	0.1615351
17	PT Tunas Baru Lampung Tbk	0.0512821	0.0321543	-0.0352564	-0.0192926
18	PT Ultra Jaya Milk Industry and Trading Company Tbk	0.014652	0.0068729	-0.021978	-0.0068729
19	PT BAT Indonesia Tbk	0.1220427	-0.0418179	-0.1701746	-0.1598548
20	PT Gudang Garam Tbk	0.189457	0.1631007	-0.0255648	-0.0045598
21	PT Hanjaya Mandala Sampoerna Tbk	0.2707612	0.3541342	-0.050173	0.1099844
22	PT Argo Pantes Tbk	-1.1914894	125.85714	42.680851	133.85714
23	PT Eratex Djaja Limited Tbk	-0.6438172	-1.0491803	-0.702957	0.9139344
24	PT Panasia Filament Inti Tbk	-0.3366337	-0.1253731	-0.5326733	0.3820896
25	PT Roda Vivatex Tbk	0.0265675	0.0446058	0.0626993	0.0186722
26	PT Sunson Textile Manufacture Tbk	0.0297619	-0.1428571	-0.0505952	-0.1674877
27	PT Teijin Indonesia Fiber Corporation (Tifico) Tbk	0.1465291	-0.2139975	0.2020638	-0.3124842
28	PT APAC Citra Centertex Tbk	0.8589212	-0.0872576	0.0456432	0.199446

29	PT Daeyu Orchid Indonesia Tbk	0.0074803	0.0025197	0.0476378	-0.0049606
30	PT Ever Shine Textile Industry Tbk	-0.0777202	-0.0393258	-0.0829016	0.0449438
31	PT Indorama Syntetics Tbk	0.0201103	0.0235057	0.003568	0.0026864
32	PT Karwell Indonesia Tbk	-0.3306452	0.0120482	-0.2983871	0.5060241
33	PT Ricky Putra Globalindo Tbk	0.3823529	0.9347826	0.8823529	0.6521739
34	PT Sarasa Nugraha Tbk	-0.5277778	-0.9807407	-0.3333333	-0.277037
35	PT Sepatu Bata Tbk	0.2409134	0.2213014	-0.0833261	-0.0054977
36	PT Surya Intrindo Makmur Tbk	-0.3130435	-0.1265823	-0.2521739	0.3291139
37	PT Daya Sakti Unggul Corporation Tbk	-0.2181818	-0.0710059	-0.4727273	0.2130178
38	PT Sumalindo Lestari Jaya Tbk	0.5625	-0.2261905	0.0456081	-0.5865801
39	PT Surya Dumai Industri Tbk	-0.1953642	0.2470588	-0.6291391	0.9411765
40	PT Tirta Mahakam Plywood Industry Tbk	0.0394089	0.0518135	-0.0492611	0.0103627
41	PT Fajar Surya Wisesa Tbk	0.0513447	0.0046404	-0.1246944	-0.0440835
42	PT Indah Kiat Pulp & Paper Corporation Tbk	-0.1408989	0.2400316	-0.002869	0.4145282
43	PT Pabrik Kertas Tjiwi Kimia Tbk	-0.0672298	0.4420536	0.0383668	0.5141563
44	PT Suparma Tbk	0.0518868	-0.2857143	0.3254717	-0.3348214
45	PT Surabaya Agung Industry Pulp Tbk	-0.0403863	0.380882	-0.0217296	0.4197088
46	PT Budi Acid Jaya Tbk	0.0300752	0.0147059	-0.0150376	-0.0147059
47	PT Colorpak Indonesia Tbk	0.1006711	0.1354839	-0.0872483	0.0387097
48	PT Eterindo Wahanatama Tbk	0.0911681	-0.0987654	0.014245	-0.0197531
49	PT Polysindo Eka Perkasa Tbk	0.1499138	0.2506753	0.2125215	0.1096704
50	PT Sorini Corporation Tbk	0.1327561	0.1242038	0.0281385	0.0070064
51	PT Unggul Indah Cahaya Tbk	0.0803528	0.1943559	-0.022048	0.1197087
52	PT Duta Pertiwi Nusantara Tbk	-0.0148912	0.0621951	-0.0389462	0.0780488
53	PT Ekadharma Tape Industries Tbk	0.0893186	0.0179695	-0.0395948	-0.0691824
54	PT Intan Wijaya International Tbk	0.0571776	0.0756694	0.0218978	0.0209546
55	PT Resource Alam Indonesia Tbk (Kurnia Kapuas Utama Glue Industries) Tbk	-0.0089127	-0.0035971	0.0035651	0.0053957
56	PT Argha Karya Prima Industry Tbk	-0.6924829	0.0123916	0.2528474	-0.7410161
57	PT Asahimas Flat Glass Co Ltd Tbk	0.2248804	0.2407688	-0.0598086	0.0505817
58	PT Asiaplast Industries Tbk	0.0018584	-0.0504425	0.0815044	-0.0523009
59	PT Berlina Co Ltd Tbk	0.062349	0.1158263	-0.1474142	0.0514229
60	PT Dynaplast Tbk	0.1690408	0.1276416	0.0218424	-0.0228233
61	PT Kageo Igar Jaya Tbk (Igarjaya)	0.1293103	0.1908397	-0.0258621	0.0763359

62	PT Langgeng Makmur Plastik Industry Ltd Tbk	-0.7563025	-3.9655172	0.5042017	-0.862069
63	PT Lapindo International Tbk	0.0217391	0.0425532	-0.0543478	0.0212766
64	PT Summiplast Interbenua Tbk	0.0150376	0.0666667	0.037594	0.0518519
65	PT Trias Sentosa Tbk	0.1980519	0.0294118	-0.1331169	-0.15
66	PT Indocement Tunggal Perkasa Tbk	0.1758454	0.025974	-0.0975845	-0.1217532
67	PT Semen Cibinong Tbk	0.0703364	-0.2017291	-0.1314985	-0.2680115
68	PT Semen Gresik (Persero) Tbk	0.1170986	0.1482357	0.0553795	0.0422083
69	PT Alumindo Light Metal Industry Tbk	-0.1048689	0.1161867	-0.0631111	0.2333664
70	PT Betonjaya Manunggal Tbk	0.0082645	0.1083333	-0.0991736	0.1
71	PT Citra Tubindo Tbk	0.028925	0.0274497	0.0049815	-0.0012767
72	PT Indal Aluminium Industry Tbk	-0.403537	0.0403226	-0.4067524	0.7150538
73	PT Jakarta Kyoei Steel Works Ltd Tbk	-0.1053284	0.1274238	-0.0404791	0.2451524
74	PT Jaya Pari Steel Tbk	0.1773836	0.924612	-0.0576497	0.7472284
75	PT Lion Mesh Prima Tbk	0.1433447	0.4504717	0.0119454	0.3183962
76	PT Lion Metal Works Tbk	0.1326362	0.2318321	0.0071547	0.1084954
77	PT Pelangi Indah Canindo Tbk	0.0034874	-0.1184211	0.179599	-0.0657895
78	PT Tembaga Mulia Semanan Tbk	0.0731295	-0.033508	-0.1205877	-0.1022709
79	PT Kedaung Indah Can Tbk	-0.1045752	-0.1641791	-0.0795207	-0.0447761
80	PT Kedawung Setia Industrial Tbk	-0.1553398	-0.2155172	-0.1286408	-0.0316092
81	PT Arwana Citra Mulia Tbk	0.1854839	0.1985816	0.0483871	0.035461
82	PT Intikeramik Alamasri Industry Tbk	-0.3003413	0.0194175	-0.5221843	0.4466019
83	PT Mulia Industrindo Tbk	0.16125	0.5197018	0.455	0.3823216
84	PT Surya Toto Indonesia Tbk	0.2950669	0.2000767	-0.3457815	-0.0452281
85	PT GL Kabel Indonesia Tbk	-0.0454545	-1.1785714	-3.8989899	-0.8571429
86	PT Jembo Cable Company Tbk	0.0255814	0.014218	-0.0511628	-0.0118483
87	PT Kabelindo Murni Tbk	-0.2530864	-0.1900826	-0.0185185	0.1487603
88	PT Sumi Indo Kabel Tbk	-0.0306807	0.0237389	-0.0162991	0.0553907
89	PT Supreme Cable Manufacturing Corporation (Sucaco) Tbk	0.0598222	-0.1300555	-0.1810833	-0.1887391
90	PT Voksel Electric Tbk	0.128593	0.3224044	0.2586989	0.2295082
91	PT Andhi Chandra Automotive Products Tbk	0.1148649	0.1633987	0.0202703	0.0522876
92	PT Astra International Tbk	0.4398074	0.4600276	-0.1195827	0.082357
93	PT Astra Otoparts Tbk	0.1955587	0.1839444	-0.0501433	0.011378
94	PT Branta Mulia Tbk	0.1307815	0.0665251	-0.0637959	-0.04954

95	PT Gajah Tunggal Tbk	1.8965517	0.3603819	-6.4275862	-0.2959427
96	PT Goodyear Indonesia Tbk	0.0612681	0.0935726	0.0045837	0.0320601
97	PT Indospring Tbk	0.0652412	-0.2643379	-0.3865132	-0.3263816
98	PT Multi Prima Sejahtera Tbk	-0.0379919	-0.0415869	-0.2944369	-0.0339261
99	PT Prima Alloy Steel Tbk	0.1527988	0.1050463	-0.3025719	0.0010299
100	PT Selamat Sempurna Tbk	0.1380597	0.16	0.0223881	0.0254545
101	PT Bristol-Myers Squibb Indonesia Tbk	0.3171547	0.0036803	0.0930367	-0.2402027
102	PT Darya-Varia Laboratoria Tbk	0.2142857	0.1850312	-0.0640394	0.004158
103	PT Indofarma (Persero) Tbk	-0.3333333	0.025	-0.1825397	0.55
104	PT Kalbe Farma Tbk	0.3305785	0.4509804	-0.214876	0.0588235
105	PT Kimia Farma (Persero) Tbk	0.0655738	0.1029412	0.0163934	0.0441176
106	PT Merck Tbk	0.3388864	0.3587979	0.0880985	0.0417076
107	PT Pyridam Farma Tbk	0.0089286	0.0265487	0	0.0176991
108	PT Schering Plough Indonesia Tbk	0.7514124	-0.1481481	1.080226	-1.2190016
109	PT Tempo Scan Pacific Tbk	0.2266835	0.2083213	0.0044262	0.0011557
110	PT Mandom Indonesia Tbk	0.203599	0.2419945	0.0123393	0.0608417
111	PT Mustika Ratu Tbk	0.0445633	0.0570902	-0.0409982	0.0110497
112	PT Unilever Indonesia Tbk	0.0642236	0.6981818	-0.4200982	0.08

TABLE C.3

THE SUMMARY OF DUMMIES DURING 2003 – 2004

No	firms	Gross Profit							
		GP03	GP04	DGP03	DGP04	Gt-Gt103	Gt-Gt104	DGt-Gt103	DGt-Gt104
1	PT Ades Alfindo Putrasetia Tbk	0.7141525	0.1067649	0.7141525	0.1067649	0.1120666	-0.2423113	0.1120666	-0.2423113
2	PT Aqua Golden Mississippi Tbk	0.4859581	0.5242294	0	0.5242294	-0.0759419	0.1280124	0	0.1280124
3	PT Cahaya Kalbar Tbk	0.0529929	-0.0042093	0.0529929	-0.0042093	-0.0241594	-0.0567888	-0.0241594	-0.0567888
4	PT Davomas Abadi Tbk	0.2335443	0.0613363	0	0.0613363	0.1527769	0.0218889	0	0.0218889
5	PT Delta Djakarta Tbk	0.483451	0.4991203	0.483451	0	0.0198786	0.0626168	0.0198786	0
6	PT Indofood Sukses Makmur Tbk	1.212655	1.1210395	0	0	0.1082051	0.0314325	0	0
7	PT Mayora Indah Tbk	0.4024879	0.421099	0	0	0.0334765	0.0535111	0	0
8	PT Multi Bintang Indonesia Tbk	0.9624454	1.1509348	0	0	0.0561621	0.1359607	0	0
9	PT Prasidha Aneka Niaga Tbk	-0.0093942	-0.5097673	-0.0093942	0	0.0049627	-0.372483	0.0049627	0
10	PT Sari Husada Tbk	0.6280336	0.0558708	0	0	0.1044826	0.0044007	0	0
11	PT Sekar Laut Tbk	-0.0591675	-0.0715084	-0.0591675	-0.0715084	0.0131208	-0.0104498	0.0131208	-0.0104498
12	PT Siantar Top Tbk	0.4704588	0.4044868	0	0	0.0431816	-0.0187206	0	0
13	PT Sierad Produce Tbk	1.0017457	3.4360961	0	3.4360961	-0.8318613	-0.141567	0	-0.141567
14	PT Sinar Mas Agro Resources and Technology Corporation (SMART) Tbk	-1.2290557	-2.4314476	-1.2290557	-2.4314476	0.3104983	-0.8085748	0.3104983	-0.8085748
15	PT Suba Indah Tbk	0.0587208	-0.1576442	0.0587208	0	-0.0056648	-0.2333044	-0.0056648	0
16	PT Tiga Pilar Sejahtera Tbk (Asia Intiselera)	-0.5198983	0.5217279	-0.5198983	0.5217279	-0.2579531	0.0503092	-0.2579531	0.0503092
17	PT Tunas Baru Lampung Tbk	0.2813607	0.4549933	0	0	0.0520872	0.1727279	0	0
18	PT Ultra Jaya Milk Industry and Trading Company Tbk	0.3033772	0.2074492	0.3033772	0.2074492	0.0548636	0.0177081	0.0548636	0.0177081
19	PT BAT Indonesia Tbk	0.7439026	0.6217644	0	0	-0.2598476	-0.0977209	0	0
20	PT Gudang Garam Tbk	0.4657298	0.4406343	0.4657298	0.4406343	-0.0318604	0.0284855	-0.0318604	0.0284855
21	PT Hanjaya Mandala Sampoerna Tbk	0.869356	1.0334077	0	0	-0.0125755	0.2285696	0	0
22	PT Argo Pantes Tbk	0.6507445	19.224636	0	0	5.2481546	14.855351	0	0
23	PT Eratex Djaja Limited Tbk	0.2209404	2.3775131	0.2209404	2.3775131	-0.369324	1.703826	-0.369324	1.703826
24	PT Panasia Filament Inti Tbk	-0.2928634	-0.0375881	-0.2928634	-0.0375881	-0.3896238	0.4038925	-0.3896238	0.4038925
25	PT Roda Vivatex Tbk	0.0859885	0.1163501	0.0859885	0.1163501	0.0853559	0.0324132	0.0853559	0.0324132
26	PT Sunson Textile Manufacture Tbk	0.179107	0.0628431	0.179107	0.0628431	0.0006794	-0.0853834	0.0006794	-0.0853834

27	PT Teijin Indonesia Fiber Corporation (Tifico) Tbk	0.0914221	0.0750519	0	0.0750519	0.0308298	0.0136043	0	0.0136043
28	PT APAC Citra Centertex Tbk	-0.7943291	0.1559579	-0.7943291	0.1559579	0.5567126	0.0593012	0.5567126	0.0593012
29	PT Daeyu Orchid Indonesia Tbk	0.2237792	0.0532777	0.2237792	0.0532777	-0.1028971	0.0367014	-0.1028971	0.0367014
30	PT Ever Shine Textile Industry Tbk	-0.0368005	0.0665919	0	0.0665919	-0.0893362	0.1064936	0	0.1064936
31	PT Indorama Syntetics Tbk	0.1715221	0.196589	0	0	-0.0188345	0.0190192	0	0
32	PT Karwell Indonesia Tbk	0.6279896	1.6190858	0.6279896	1.6190858	0.14489	0.6808844	0.14489	0.6808844
33	PT Ricky Putra Globalindo Tbk	3.5417688	2.2020728	3.5417688	2.2020728	1.6332721	1.0272026	1.6332721	1.0272026
34	PT Sarasa Nugraha Tbk	-0.0650758	-0.1458249	0	-0.1458249	-0.2778157	-0.0590572	0	-0.0590572
35	PT Sepatu Bata Tbk	1.1971854	1.1999924	1.1971854	1.1999924	-0.0647205	0.0729466	-0.0647205	0.0729466
36	PT Surya Intrindo Makmur Tbk	-0.2202174	0.0406709	0	0	-0.2279478	0.3612405	0	0
37	PT Daya Sakti Unggul Corporation Tbk	0.9152545	1.5926509	0	1.5926509	-0.2066909	0.4011953	0	0.4011953
38	PT Sumalindo Lestari Jaya Tbk	0.0381153	-0.125289	0	0	-0.1670595	-0.1399182	0	0
39	PT Surya Dumai Industri Tbk	0.0168989	-0.0778328	0	0	0.0943698	-0.1378737	0	0
40	PT Tirta Mahakam Plywood Industry Tbk	0.2552419	0.4810559	0	0.4810559	0.0377289	0.2740887	0	0.2740887
41	PT Fajar Surya Wisesa Tbk	0.160892	0.2238537	0.160892	0	-0.0305045	0.0711743	-0.0305045	0
42	PT Indah Kiat Pulp & Paper Corporation Tbk	0.0751554	0.1427766	0	0	-0.0123887	0.0497002	0	0
43	PT Pabrik Kertas Tjiwi Kimia Tbk	0.4315427	0.5483067	0	0.5483067	0.0431372	0.0854857	0	0.0854857
44	PT Suparma Tbk	0.3509706	0.4131475	0	0	0.0386613	0.0809789	0	0
45	PT Surabaya Agung Industry Pulp Tbk	0.0279082	-0.0004436	0.0279082	-0.0004436	0.0136054	-0.027274	0.0136054	-0.027274
46	PT Budi Acid Jaya Tbk	0.5717365	0.9959944	0	0	-0.0498174	0.4368697	0	0
47	PT Colorpak Indonesia Tbk	0.2434501	0.3006373	0.2434501	0	-0.0845097	0.0666351	-0.0845097	0
48	PT Eterindo Wahanatama Tbk	-0.1512686	0.0281849	0	0.0281849	0.315189	-0.1029146	0	-0.1029146
49	PT Polysindo Eka Perkasa Tbk	0.0449121	0.0488353	0	0.0488353	0.0183002	0.0065923	0	0.0065923
50	PT Sorini Corporation Tbk	0.3481922	0.5672753	0.3481922	0.5672753	-0.0873377	0.2598903	-0.0873377	0.2598903
51	PT Unggul Indah Cahaya Tbk	0.4184045	0.5265923	0	0.5265923	0.0303191	0.137897	0	0.137897
52	PT Duta Pertiwi Nusantara Tbk	0.1220638	0.1603477	0	0	-0.040309	0.0303944	0	0
53	PT Ekadharma Tape Industries Tbk	0.375435	0.0732374	0	0	0.0655169	-2.813E-05	0	0
54	PT Intan Wijaya International Tbk	0.2216324	0.1817316	0	0	0.019532	-0.015864	0	0
55	PT Resource Alam Indonesia Tbk (Kurnia Kapuas Utama Glue Industries) Tbk	0.2101034	0.2079137	0.2101034	0.2079137	-0.0956791	-0.0040791	-0.0956791	-0.0040791
56	PT Argha Karya Prima Industry Tbk	-0.3259882	0.328189	-0.3259882	0	0.1065942	-0.0264797	0.1065942	0
57	PT Asahimas Flat Glass Co Ltd Tbk	0.6241842	0.6151829	0.6241842	0.6151829	0.0001488	0.0872942	0.0001488	0.0872942
58	PT Asiaplast Industries Tbk	0.1661062	0.1434309	0	0	0.1502995	-0.0226753	0	0
59	PT Berlina Co Ltd Tbk	0.3834521	0.5072464	0.3834521	0.5072464	-0.1424479	0.1111593	-0.1424479	0.1111593

60	PT Dynaplast Tbk	0.4930061	0.4618147	0.4930061		0	0.0801497	0.0335324	0.0801497				
61	PT Kageo Igar Jaya Tbk (Igarjaya)	0.6543432	0.4415485	0	0	0	-0.0171429	-0.1378699		0	0		
62	PT Langgeng Makmur Plastik Industry Ltd Tbk	0.6843426	2.2242118	0	0	0	-0.0423855	-0.5839528		0	0		
63	PT Lapindo International Tbk	0.1922363	0.2702645	0	0	0	0.0824634	0.0822019		0	0		
64	PT Summiplast Interbenua Tbk	0.1110891	0.2293369	0.1110891	0	0	0.0398811	0.1198935	0.0398811	0	0		
65	PT Trias Sentosa Tbk	0.2025139	0.1470714	0	0	0	-0.0413314	-0.0363824		0	0		
66	PT Indocement Tunggal Perkasa Tbk	0.3663765	0.3358313	0	0	0	0.0251982	0.0280393		0	0		
67	PT Semen Cibinong Tbk	0.08962	0.0645304	0	0	0	0.0888889	-0.0199242		0	0		
68	PT Semen Gresik (Persero) Tbk	0.5950745	0.5869999	0	0	0	0.0790497	0.0481877		0	0		
69	PT Alumindo Light Metal Industry Tbk	0.1916566	0.3767201	0	0	0	0.0180462	0.1626053		0	0		
70	PT Betonjaya Manunggal Tbk	0.0597337	0.2329167	0.0597337	0.2329167	0	0.0593664	0.1726852		0	0		
71	PT Citra Tubindo Tbk	0.1324562	0.1293648	0	0	0.5492424	0.0349871	-0.0021824	0.0593664	0	0		
72	PT Indal Aluminium Industry Tbk	0.2089525	0.5492424	0	0	0	-0.1061357	0.1998649		0	0		
73	PT Jakarta Kyoei Steel Works Ltd Tbk	0.014209	-0.0434103	0	0	1.0636137	0.0248603	-0.0592921		0	0		
74	PT Jaya Pari Steel Tbk	0.4984183	1.1652033	0	0	0.520114	-0.0050998	0.6667849		0	0		
75	PT Lion Mesh Prima Tbk	0.5061682	1.0636137	0.5061682	0	0	0.1400739	0.5972386		0	0		
76	PT Lion Metal Works Tbk	0.4006642	0.520114	0.4006642	0	0.5184122	0.0333605	0.1475414	0.1400739	0	0		
77	PT Pelangi Indah Canindo Tbk	-0.0077926	0.3975471	0	0	0	0.0007917	0.2799405	0.0333605	0.5972386	0		
78	PT Tembaga Mulia Semanan Tbk	0.3484382	0.5184122	0	0	0	-0.0169562	0.1907796	0	0.1475414	0		
79	PT Kedaung Indah Can Tbk	-0.0068833	0.03561	0	0	0	-0.1703609	0.0434692	0	0	0		
80	PT Kedawung Setia Industrial Tbk	0.2385818	0.4879234	0.2385818	0	0	-0.0812663	0.2054645	0	0.1907796	0		
81	PT Arwana Citra Mulia Tbk	0.6030727	0.6187633	0	0	0	0.0918207	0.0884015	-0.0812663	0	0		
82	PT Intikeramik Alamasri Industry Tbk	0.0844748	0.4481769	0	0	0	-0.0240121	0.3280259	0	0	0		
83	PT Mulia Industrindo Tbk	-0.3319407	-0.4948849	0	0	0	0.260189	-0.2120813	0	0	0		
84	PT Surya Toto Indonesia Tbk	1.1386255	1.1808626	1.1386255	0	0	-0.1119192	0.2342629	0	0	0		
85	PT GL Kabel Indonesia Tbk	-0.0105395	-0.0890012	0	0	0	-0.0491763	-0.0144715	-0.1119192	0	0		
86	PT Jembo Cable Company Tbk	0.4386305	0.7819122	0.4386305	0	0.7819122	-0.0344838	0.3349664	0	0	0		
87	PT Kabelindo Murni Tbk	-0.059149	-0.0998746	-0.059149	0	-0.0998746	-0.0345624	-0.0206833	-0.0344838	0	0		
88	PT Sumi Indo Kabel Tbk	0.0831782	0.1903441	0	0	0.1903441	-0.0208298	0.1045331	-0.0345624	0.3349664	0		
89	PT Supreme Cable Manufacturing Corporation (Sucaco) Tbk	0.3069247	0.1112904	0.3069247	0	0	0.0271247	-0.1897928	0	-0.0206833	0.1045331		
90	PT Voksel Electric Tbk	-0.4270946	-0.4294995	-0.4270946	0	-0.4294995	0.0249742	-0.1209645	0.0271247	0.1045331	0		
91	PT Andhi Chandra Automotive Products Tbk	0.2237629	0.2860534	0	0	0.2860534	0.0413893	0.069603	0.0249742	0	-0.1209645		
92	PT Astra International Tbk	0.7638198	0.8778615	0.7638198	0.8778615	0.1048534	0.2242019	0.1048534	0	-0.1209645	0.069603		

93	PT Astra Otoparts Tbk	0.3866314	0.4677632	0.3866314	0.4677632	0.0077787	0.1322138	0.0077787	0.1322138		
94	PT Branta Mulia Tbk	0.4414141	0.4794653	0.4414141	0	-0.1229506	0.0877219	-0.1229506	0		
95	PT Gajah Tunggal Tbk	1.8979036	0.8470633	0	0	0.0515522	0.1902708	0	0		
96	PT Goodyear Indonesia Tbk	0.2475172	0.3220567	0.2475172	0.3220567	0.0111759	0.0735524	0.0111759	0		
97	PT Indospring Tbk	0.3862281	0.5333055	0.3862281	0	-0.2069591	0.1660063	-0.2069591	0.0735524		
98	PT Multi Prima Sejahtera Tbk	0.3223881	0.0987398	0.3223881	0.0987398	0.0113018	0.033733	0.0113018	0		
99	PT Prima Alloy Steel Tbk	0.6283641	0.4586757	0.6283641	0.4586757	0.4521082	0.0309223	0.4521082	0.033733		
100	PT Selamat Sempurna Tbk	0.4420198	0.4890826	0	0.4890826	0.0344526	0.0583143	0	0.0309223		
101	PT Bristol-Myers Squibb Indonesia Tbk	13.083066	12.557734	0	0	0.5489182	2.4972273	0	0.0583143		
102	PT Darya-Varia Laboratoria Tbk	1.1519177	1.0520716	0	0	-0.0258885	0.0797669	0	0		
103	PT Indofarma (Persero) Tbk	0.3504079	0.873408	0	0	0.0350185	0.3215155	0	0		
104	PT Kalbe Farma Tbk	3.3049059	2.3516544	0	0	0.5394471	0.3913915	0	0		
105	PT Kimia Farma (Persero) Tbk	0.800907	0.8560987	0	0.8560987	0.1439326	0.137638	0	0		
106	PT Merck Tbk	1.2098462	1.3282896	0	0	0.3229388	0.1962568	0	0		
107	PT Pyridam Farma Tbk	0.2835524	0.342898	0	0	0.0312036	0.0618549	0	0.137638		
108	PT Schering Plough Indonesia Tbk	14.016949	23.862498	14.016949	23.862498	1.3882611	3.8866524	1.3882611	0		
109	PT Tempo Scan Pacific Tbk	0.6798876	0.6862429	0	0	0.0696687	0.0648952	0	3.8866524		
110	PT Mandom Indonesia Tbk	0.8267649	0.9343755	0	0.9343755	0.0898787	0.198759	0	0		
111	PT Mustika Ratu Tbk	0.5454462	0.5676494	0.5454462	0	-0.0574408	0.0041221	-0.0574408	0.198759		
112	PT Unilever Indonesia Tbk	0.2088011	2.2254226	0.2088011	2.2254226	0.0420008	0.2156168	0.0420008	0		
									0.2156168		

TABLE C.4
THE SUMMARY OF DUMMIES DURING 2003 – 2004

No	firms	Selling and Administrative Expense								
		SA03	SA04	DSA03	DSA04	Sat-Sat103	Sat-Sat104	DSat-Sat103	DSat-Sat104
1	PT Ades Alfindo Putrasetia Tbk	0.9443869	0.4998435	0.9443869	0.4998435	0.2429088	0.0382292	0.2429088	0.0382292
2	PT Aqua Golden Mississippi Tbk	0.1293358	0.0930392	0	0.0930392	-0.048348	-0.0124124	0	-0.0124124
3	PT Cahaya Kalbar Tbk	0.0486536	0.0424823	0.0486536	0.0424823	0.0050266	-0.0057917	0.0050266	-0.0057917
4	PT Davomas Abadi Tbk	0.0166075	0.0029105	0	0.0029105	0.0039789	0.0001053	0	0.0001053
5	PT Delta Djakarta Tbk	0.3095995	0.320966	0.3095995	0	0.0424005	0.0414314	0.0424005	0
6	PT Indofood Sukses Makmur Tbk	0.667213	0.6117679	0	0	00. 732705	0.0122571	0	0
7	PT Mayora Indah Tbk	0.1991829	0.2604883	0	0	0.0345279	0.0785767	0	0
8	PT Multi Bintang Indonesia Tbk	0.5894666	0.7650983	0	0	0.1126104	0.1434597	0	0
9	PT Prasidha Aneka Niaga Tbk	-0.019056	-0.2890895	-0.019056	0	0.0032279	-0.0106097	0.0032279	0
10	PT Sari Husada Tbk	0.2263864	0.0314202	0	0	0.0768789	0.0128669	0	0
11	PT Sekar Laut Tbk	-0.0941822	-0.0939472	-0.0941822	-0.0939472	-0.0020685	0.0032451	-0.0020685	0.0032451
12	PT Siantar Top Tbk	0.2864522	0.2449115	0	0	0.0048581	-0.0127704	0	0
13	PT Sierad Produce Tbk	1.5752988	6.8436716	0	6.8436716	0.0436593	1.2176045	0	1.2176045
14	PT Sinar Mas Agro Resources and Technology Corporation (SMART) Tbk	-0.8797925	-1.3128599	-0.8797925	-1.3128599	-0.0525394	-0.151162	-0.0525394	-0.151162
15	PT Suba Indah Tbk	0.0926025	0.0915512	0.0926025	0	0.0197246	-0.0277649	0.0197246	0
16	PT Tiga Pilar Sejahtera Tbk (Asia Intiselera)	-0.3178459	0.2548502	-0.3178459	0.2548502	-0.0801084	-0.0333571	-0.0801084	-0.0333571
17	PT Tunas Baru Lampung Tbk	0.1341724	0.1879951	0	0	0.0057282	0.0533913	0	0
18	PT Ultra Jaya Milk Industry and Trading Company Tbk	0.1400647	0.1045925	0.1400647	0.1045925	0.0140046	0.0169919	0.0140046	0.0169919
19	PT BAT Indonesia Tbk	0.5575011	0.6772156	0	0	-0.0274576	0.1380134	0	0
20	PT Gudang Garam Tbk	0.1638796	0.1746403	0.1638796	0.1746403	0.0221499	0.0296146	0.0221499	0.0296146
21	PT Hanjaya Mandala Sampoerna Tbk	0.4094171	0.4668879	0	0	0.0518022	0.087855	0	0
22	PT Argo Pantes Tbk	-5.7873337	-31.494899	0	0	-0.3101807	7.3629134	0	0
23	PT Eratex Djaja Limited Tbk	0.8305651	1.972625	0.8305651	1.972625	0.0484487	-0.5599179	0.0484487	-0.5599179
24	PT Panasia Filament Inti Tbk	0.3098059	0.6441791	0.3098059	0.6441791	-0.118004	0.1771582	-0.118004	0.1771582

25	PT Roda Vivatex Tbk	0.0730487	0.0677747	0.0730487	0.0677747	-0.0048074	-0.0035311	-0.0048074	-0.0035311		
26	PT Sunson Textile Manufacture Tbk	0.1422491	0.100423	0.1422491	0.100423	0.0379535	-0.0173004	0.0379535	-0.0173004		
27	PT Teijin Indonesia Fiber Corporation (Tifico) Tbk	0.1254877	0.1138673	0	0.1138673	-0.0010188	0.0295231	0	0.0295231		
28	PT APAC Citra Centertex Tbk	-1.2784328	0.1692203	-1.2784328	0.1692203	-0.0250903	0.0136562	-0.0250903	0.0136562		
29	PT Daeyu Orchid Indonesia Tbk	0.2093912	0.0270811	0.2093912	0.0270811	-0.1500024	0.0115705	-0.1500024	0.0115705		
30	PT Ever Shine Textile Industry Tbk	0.0646843	0.0863351	0	0.0863351	-0.0054919	0.0161998	0	0.0161998		
31	PT Indorama Syntetics Tbk	0.1212933	0.1395036	0.7865047	0	0.0037792	0.0139337	0.1357426	0		
32	PT Karwell Indonesia Tbk	0.7865047	0.9968877	3.4846814	0.9968877	0.1357426	-0.1781314	-0.0154208	-0.1781314		
33	PT Ricky Putra Globalindo Tbk	3.4846814	1.3152882	0	1.3152882	-0.0154208	0.159355	0	0.159355		
34	PT Sarasa Nugraha Tbk	0.3955303	0.3128283	0.8102502	0.3128283	0.0110859	-0.2145455	0.067865	-0.2145455		
35	PT Sepatu Bata Tbk	0.8102502	0.8200289	0	0.8200289	0.067865	0.0572489	0	0.0572489		
36	PT Surya Intrindo Makmur Tbk	0.0671913	0.094557	0	0	0.0010174	-0.0032532	0	0		
37	PT Daya Sakti Unggul Corporation Tbk	1.0660364	1.3040355	0	1.3040355	0.0956636	-0.0837041	0.067865	-0.0837041		
38	PT Sumalindo Lestari Jaya Tbk	-0.2285045	-0.1013017	0	0	0.0579459	-0.0135987	0	0		
39	PT Surya Dumai Industri Tbk	-0.0513838	-0.1203529	0	0	-0.0072203	0.0622105	0	0		
40	PT Tirta Mahakam Plywood Industry Tbk	0.1512126	0.1905388	0	0.1905388	0.017134	0.0679256	0	0		
41	PT Fajar Surya Wisesa Tbk	0.0886718	0.0952789	0.0886718	0	-0.014491	0.0111333	0	0		
42	PT Indah Kiat Pulp & Paper Corporation Tbk	0.067928	0.1091253	0	0	0.0116541	0.0249998	-0.014491	0.0679256		
43	PT Pabrik Kertas Tjiwi Kimia Tbk	0.2501777	0.3103871	0	0.3103871	0.0200449	0.0420764	0	0		
44	PT Suparma Tbk	0.1526243	0.1629793	0	0	0.0187196	0.0185313	0	0		
45	PT Surabaya Agung Industry Pulp Tbk	-0.0564801	-0.0505245	-0.0564801	-0.0505245	0.0196825	0.0037746	0	0.0420764		
46	PT Budi Acid Jaya Tbk	0.2822556	0.3701751	0	0	-0.1677766	0.0941457	0.0196825	0		
47	PT Colorpak Indonesia Tbk	0.1424855	0.1749488	0.1424855	0	0.0316829	0.037993	0	0.0037746		
48	PT Eterindo Wahanatama Tbk	-0.1224519	0.0217284	0	0.0217284	0.2661471	-0.0843966	0.0316829	0		
49	PT Polysindo Eka Perkasa Tbk	-0.0391898	-0.0176308	0	-0.0176308	0.0285527	0.0192301	0	0		
50	PT Sorini Corporation Tbk	0.2719336	0.3127389	0.2719336	0.3127389	0.0011584	0.0726752	0	-0.0843966		
51	PT Unggul Indah Cahaya Tbk	0.2214399	0.2524261	0	0.2524261	0.115012	0.0467098	0.0011584	0.0192301		
52	PT Duta Pertiwi Nusantara Tbk	0.1320956	0.1581206	0	0	0.023838	0.0174872	0	0.0726752		
53	PT Ekadharma Tape Industries Tbk	0.2889165	0.0495307	0	0	0.0916454	-0.0068508	0	0.0467098		
54	PT Intan Wijaya International Tbk	0.1029832	0.1041544	0	0	0.010646	0.0123401	0	0		
55	PT Resource Alam Indonesia Tbk (Kurnia Kapuas Utama Glue Industries) Tbk	0.1900535	0.218777	0.1900535	0.218777	-0.0008627	0.0270144	-0.0008627	0		
56	PT Argha Karya Prima Industry Tbk	-0.1686152	0.169278	-0.1686152	0	-0.0224642	-0.014172	-0.0224642	0.0270144		
57	PT Asahimas Flat Glass Co Ltd Tbk	0.2957495	0.2634385	0.2957495	0.2634385	0.0062813	0.0133156	0.0062813	0		
									0.0133156		

58	PT Asiaplast Industries Tbk	0.054241	0.0619537	0	0	0	-0.0071818	0.0077127	0	0	0	0	0
59	PT Berlina Co Ltd Tbk	0.1660888	0.2128329	0.1660888	0.2128329	0	0.0309048	0.0412714	0.0309048	0.0704131	0.0412714	0	0
60	PT Dynaplast Tbk	0.2116351	0.1957687	0.2116351	0	0	0.0704131	0.0119179	0.0704131	0	0	0	0
61	PT Kageo Igar Jaya Tbk (Igarjaya)	0.2327997	0.1827481	0	0	0	-0.0138013	-0.0233951	0	0	0	0	0
62	PT Langgeng Makmur Plastik Industry Ltd Tbk	0.6428662	2.6823435	0	0	0	0.0591087	0.0443754	0	0	0	0	0
63	PT Lapindo International Tbk	0.1448559	0.1584087	0	0	0	0.0426918	0.0166979	0	0	0	0	0
64	PT Summiplast Interbenua Tbk	0.0908559	0.10609	0	0	0	0.0020981	0.0165802	0	0	0	0	0
65	PT Trias Sentosa Tbk	0.0666012	0.0703735	0	0	0	0.0061281	0.0100406	0.0020981	0	0	0	0
66	PT Indocement Tunggal Perkasa Tbk	0.1526335	0.1514465	0.0908559	0	0	0.0555301	0.0232195	0	0	0	0	0
67	PT Semen Cibinong Tbk	0.0951253	0.0908494	0	0	0	0.010297	0.0012068	0	0	0	0	0
68	PT Semen Gresik (Persero) Tbk	0.3030228	0.3143634	0	0	0	0.0260258	0.0399904	0	0	0	0	0
69	PT Alumindo Light Metal Industry Tbk	0.1749235	0.1991417	0	0	0	-0.0286955	0.0037207	0	0	0	0	0
70	PT Betonjaya Manunggal Tbk	0.0712121	0.0961111	0	0	0	-0.0011019	0.0243056	0	0	0	0	0
71	PT Citra Tubindo Tbk	0.1189981	0.1267056	0.0712121	0	0	0.0219569	0.0085242	-0.0011019	0	0	0	0
72	PT Indal Aluminium Industry Tbk	0.3331242	0.5142656	0	0.0961111	0	0.0034002	-0.0427324	0	0	0	0	0.0243056
73	PT Jakarta Kyoei Steel Works Ltd Tbk	-0.0121024	-0.0393721	0	0	0.5142656	-0.0014622	-0.0258449	0	0	0	0	0
74	PT Jaya Pari Steel Tbk	0.1641981	0.1610939	0	0	0	-0.0333481	-0.0031042	0	0	0	0	-0.0427324
75	PT Lion Mesh Prima Tbk	0.3071672	0.3123362	0.3071672	0	0.3123362	0.0111988	0.0293173	0	0	0	0	0
76	PT Lion Metal Works Tbk	0.2206996	0.2325971	0.2206996	0	0.2325971	0.0380159	0.0273713	0.0111988	0.0293173	0.0273713	0	0
77	PT Pelangi Indah Canindo Tbk	0.0298066	-0.4086052	0	0	0	0.0578806	0.041239	0.0380159	0.0273713	0	0	0
78	PT Tembaga Mulia Semanan Tbk	0.3170269	0.3304599	0	0	0.3304599	-0.0016644	0.0323629	0.0273713	0	0	0	0
79	PT Kedaung Indah Can Tbk	0.1349105	0.1398983	0	0	0	0.0131824	-0.0141413	0	0	0	0	0
80	PT Kedawung Setia Industrial Tbk	0.4881544	0.5704453	0	0	0	0.0411654	-0.0074846	0	0	0	0	0
81	PT Arwana Citra Mulia Tbk	0.2462266	0.2116607	0.4881544	0	0	0.0405895	-0.004879	0.0411654	0	0	0	0
82	PT Intikeramik Alamasri Industry Tbk	0.2905347	0.3983387	0	0	0	-0.0092833	-0.0148975	0	0	0	0	0
83	PT Mulia Industrindo Tbk	-0.446747	-0.4331991	0	0	0	-0.0316468	-0.052584	0	0	0	0	0
84	PT Surya Toto Indonesia Tbk	0.5472267	0.5091635	0	0	0	-0.0283218	0.0542249	0	0	0	0	0
85	PT GL Kabel Indonesia Tbk	0.0593627	0.3630197	0.5472267	0	0	-0.0125482	-0.0567596	-0.0283218	0	0	0	0
86	PT Jembo Cable Company Tbk	0.4114679	0.586869	0	0	0	-0.0753353	0.1676007	0	0	0	0	0
87	PT Kabelindo Murni Tbk	0.0598876	0.0583604	0.4114679	0.586869	0	0.0052579	-0.0218197	-0.0753353	0.1676007	0	0	0
88	PT Sumi Indo Kabel Tbk	0.1206017	0.1102416	0.0598876	0.0583604	0.1102416	0.052203	-0.0141774	0.0052579	-0.0218197	-0.0141774	0	0
89	PT Supreme Cable Manufacturing Corporation (Sucaco) Tbk	0.1955867	0.1963234	0.1955867	0	0	0.0531012	0.0044592	0	-0.0141774	0	0	0
90	PT Voksel Electric Tbk	-0.4530894	-0.3797988	-0.4530894	-0.3797988	0.0531012	0.0769277	-0.052485	0.0531012	0	0	0	0
						0.0769277			0.0769277	-0.052485	0	0	0
											-0.052485	0	0

91	PT Andhi Chandra Automotive Products Tbk	0.0930735	0.0998033	0	0.0998033	0.0104293	0.0097714	0	0.0464458	0.0097714	0.0930735
92	PT Astra International Tbk	0.4258637	0.4643485	0.4258637	0.4643485	0.0464458	0.099904	0.0464458	0.0318278	0.099904	0.4258637
93	PT Astra Otoparts Tbk	0.2456348	0.2713447	0.2456348	0.2713447	0.0318278	0.0581633	0.0318278	-0.041143	0.0581633	0.2456348
94	PT Branta Mulia Tbk	0.2861049	0.2478572	0.2861049	0	-0.041143	-0.0060533	-0.041143	0	0	0.2861049
95	PT Gajah Tunggal Tbk	1.4109065	0.3319374	0	0	0.3293713	-0.1563238	0	0.0089027	0	1.4109065
96	PT Goodyear Indonesia Tbk	0.1487935	0.1888626	0.1487935	0.1888626	0.0089027	0.0394756	0.0089027	0.0835673	0.0394756	0.1487935
97	PT Indospring Tbk	0.3372076	0.4318109	0.3372076	0	0.0835673	0.1111296	0.0835673	0.1458377	0	0.3372076
98	PT Multi Prima Sejahtera Tbk	0.5467635	0.1226362	0.5467635	0.1226362	0.1458377	0.0123859	0.1458377	0.0869508	0.0123859	0.5467635
99	PT Prima Alloy Steel Tbk	0.2488756	0.2169024	0.2488756	0.2169024	0.0869508	0.0474824	0.0869508	0.0188655	0.0474824	0.2488756
100	PT Selamat Sempurna Tbk	0.1847242	0.1955597	0	0.1955597	0.0188655	0.0155376	0.0188655	-0.6884014	0.0155376	0.1847242
101	PT Bristol-Myers Squibb Indonesia Tbk	7.1921574	6.090389	0	0	-0.6884014	0.559824	-0.6884014	-0.0762359	0.559824	7.1921574
102	PT Darya-Varia Laboratoria Tbk	0.7912122	0.7548374	0	0	-0.0762359	0.0869951	-0.0762359	0.025367	0.0869951	0.7912122
103	PT Indofarma (Persero) Tbk	0.4745745	0.6692226	0	0	0.025367	-0.0782322	0.025367	0.4337642	-0.0782322	0.4745745
104	PT Kalbe Farma Tbk	2.1523117	1.4661085	0	0	0.4337642	0.1894923	0.4337642	0.0975194	0.1894923	2.1523117
105	PT Kimia Farma (Persero) Tbk	0.6646576	0.6909977	0	0.6909977	0.0975194	0.0947608	0.0975194	0.2085678	0.0947608	0.6646576
106	PT Merck Tbk	0.7527444	0.8084614	0	0	0.2085678	0.1041311	0.2085678	0.0251131	0.1041311	0.7527444
107	PT Pyridam Farma Tbk	0.2526491	0.3027915	0	0	0.0251131	0.0523782	0.0251131	0.4259259	0.0523782	0.2526491
108	PT Schering Plough Indonesia Tbk	11.466102	21.501163	11.466102	21.501163	0.4259259	5.1605833	0.4259259	0.0724425	5.1605833	11.466102
109	PT Tempo Scan Pacific Tbk	0.4122268	0.4392905	0.5282348	0	0.0724425	0.0625574	0.0724425	0.073947	0.0625574	0.4122268
110	PT Mandom Indonesia Tbk	0.5282348	0.5666039	0	0.5666039	0.073947	0.0966054	0.073947	0.0012661	0.0966054	0.5282348
111	PT Mustika Ratu Tbk	0.4296567	0.4766527	0.4296567	0	0.0012661	0.0327533	0.0012661	0.0193796	0.0327533	0.4296567
112	PT Unilever Indonesia Tbk	0.1208148	1.2535661	0.1208148	1.2535661	0.0193796	0.0906689	0.0193796	0.0906689	0.0906689	0.1208148

TABLE C.5
THE SUMMARY OF DUMMIES DURING 2003 – 2004

No	firms	M03	M04	MEt-Et103	MEt-Et104
1	PT Ades Alfindo Putrasetia Tbk	1	1	-0.0446194	-0.873631
2	PT Aqua Golden Mississippi Tbk	1	1	-0.0183032	0.1091775
3	PT Cahaya Kalbar Tbk	0	0	0	0
4	PT Davomas Abadi Tbk	1	1	0.1393035	-0.1218487
5	PT Delta Djakarta Tbk	0	0	0	0
6	PT Indofood Sukses Makmur Tbk	0	0	0	0
7	PT Mayora Indah Tbk	0	0	0	0
8	PT Multi Bintang Indonesia Tbk	0	0	0	0
9	PT Prasidha Aneka Niaga Tbk	0	0	0	0
10	PT Sari Husada Tbk	0	0	0	0
11	PT Sekar Laut Tbk	0	0	0	0
12	PT Siantar Top Tbk	0	0	0	0
13	PT Sierad Produce Tbk	0	0	0	0
14	PT Sinar Mas Agro Resources and Technology Corporation (SMART) Tbk	0	0	0	0
15	PT Suba Indah Tbk	0	0	0	0
16	PT Tiga Pilar Sejahtera Tbk (Asia Intiselera)	0	0	0	0
17	PT Tunas Baru Lampung Tbk	0	0	0	0
18	PT Ultra Jaya Milk Industry and Trading Company Tbk	1	1	2.5345622	0.1615351
19	PT BAT Indonesia Tbk	0	0	0	0
20	PT Gudang Garam Tbk	1	1	-0.021978	-0.0068729
21	PT Hanjaya Mandala Sampoerna Tbk	0	0	0	0
22	PT Argo Pantes Tbk	0	0	0	0
23	PT Eratex Djaja Limited Tbk	0	0	0	0
24	PT Panasia Filament Inti Tbk	0	0	0	0
25	PT Roda Vivatex Tbk	1	1	-0.5326733	0.3820896
26	PT Sunson Textile Manufacture Tbk	1	1	0.0626993	0.0186722
27	PT Teijin Indonesia Fiber Corporation (Tifico) Tbk	0	0	0	0
		0	0	0	0

28	PT APAC Citra Centertex Tbk		1	1	0	0
29	PT Daeyu Orchid Indonesia Tbk		0	0	0.0476378	-0.0049606
30	PT Ever Shine Textile Industry Tbk		0	0	0	0
31	PT Indorama Syntetics Tbk		0	0	0	0
32	PT Karwell Indonesia Tbk		0	0	0	0
33	PT Ricky Putra Globalindo Tbk		1	1	-0.3333333	0
34	PT Sarasa Nugraha Tbk		0	0	0	-0.277037
35	PT Sepatu Bata Tbk		1	1	-0.2521739	0
36	PT Surya Intrindo Makmur Tbk		0	0	0	0.3291139
37	PT Daya Sakti Unggul Corporation Tbk		0	0	0	0
38	PT Sumalindo Lestari Jaya Tbk		0	0	0	0
39	PT Surya Dumai Industri Tbk		0	0	0	0
40	PT Tirta Mahakam Plywood Industry Tbk		0	0	0	0
41	PT Fajar Surya Wisesa Tbk		0	0	0	0
42	PT Indah Kiat Pulp & Paper Corporation Tbk		0	0	0	0
43	PT Pabrik Kertas Tjiwi Kimia Tbk		0	0	0	0
44	PT Suparma Tbk		0	0	0	0
45	PT Surabaya Agung Industry Pulp Tbk		0	0	0	0
46	PT Budi Acid Jaya Tbk		0	0	0	0
47	PT Colorpak Indonesia Tbk		0	0	0	0
48	PT Eterindo Wahanatama Tbk		0	0	0	0
49	PT Polysindo Eka Perkasa Tbk		1	1	-0.0872483	0.0387097
50	PT Sorini Corporation Tbk		0	0	0	0
51	PT Unggul Indah Cahaya Tbk		0	0	0	0
52	PT Duta Pertiwi Nusantara Tbk		0	0	0	0
53	PT Ekadharma Tape Industries Tbk		1	1	-0.0389462	0.0780488
54	PT Intan Wijaya International Tbk		0	0	0	0
55	PT Resource Alam Indonesia Tbk (Kurnia Kapuas Utama Glue Industries) Tbk		0	0	0	0
56	PT Argha Karya Prima Industry Tbk		0	0	0	0
57	PT Asahimas Flat Glass Co Ltd Tbk		0	0	0	0
58	PT Asiaplast Industries Tbk		0	0	0	0
59	PT Berlina Co Ltd Tbk		1	1	-0.1474142	0.0514229
60	PT Dynaplast Tbk		1	1	0.0218424	-0.0228233

61	PT Kageo Igar Jaya Tbk (Igarjaya)	1	1	-0.0258621	0.0763359
62	PT Langgeng Makmur Plastik Industry Ltd Tbk	0	0	0	0
63	PT Lapindo International Tbk	1	1	-0.0543478	0.0212766
64	PT Summiplast Interbenua Tbk	0	0	0	0
65	PT Trias Sentosa Tbk	0	0	0	0
66	PT Indocement Tunggal Perkasa Tbk	0	0	0	0
67	PT Semen Cibinong Tbk	0	0	0	0
68	PT Semen Gresik (Persero) Tbk	0	0	0	0
69	PT Alumindo Light Metal Industry Tbk	0	0	0	0
70	PT Betonjaya Manunggal Tbk	0	0	0	0
71	PT Citra Tubindo Tbk	0	0	0	0
72	PT Indal Aluminium Industry Tbk	0	0	0	0
73	PT Jakarta Kyoei Steel Works Ltd Tbk	0	0	0	0
74	PT Jaya Pari Steel Tbk	0	0	0	0
75	PT Lion Mesh Prima Tbk	0	0	0	0
76	PT Lion Metal Works Tbk	0	0	0	0
77	PT Pelangi Indah Canindo Tbk	0	0	0	0
78	PT Tembaga Mulia Semanan Tbk	0	0	0	0
79	PT Kedaung Indah Can Tbk	0	0	0	0
80	PT Kedawung Setia Industrial Tbk	0	0	0	0
81	PT Arwana Citra Mulia Tbk	0	0	0	0
82	PT Intikeramik Alamasri Industry Tbk	0	0	0	0
83	PT Mulia Industrindo Tbk	0	0	0	0
84	PT Surya Toto Indonesia Tbk	0	0	0	0
85	PT GL Kabel Indonesia Tbk	0	0	0	0
86	PT Jembo Cable Company Tbk	0	0	0	0
87	PT Kabelindo Murni Tbk	0	0	0	0
88	PT Sumi Indo Kabel Tbk	0	0	0	0
89	PT Supreme Cable Manufacturing Corporation (Sucaco) Tbk	1	1	-0.0185185	0.1487603
90	PT Voksel Electric Tbk	0	0	0	0
91	PT Andhi Chandra Automotive Products Tbk	0	0	0	0
92	PT Astra International Tbk	0	0	0	0
93	PT Astra Otoparts Tbk	0	0	0	0

94	PT Branta Mulia Tbk	0	0	0	0	0
95	PT Gajah Tunggal Tbk	0	0	0	0	0
96	PT Goodyear Indonesia Tbk	0	0	0	0	0
97	PT Indospring Tbk	0	0	0	0	0
98	PT Multi Prima Sejahtera Tbk	0	0	0	0	0
99	PT Prima Alloy Steel Tbk	0	0	0	0	0
100	PT Selamat Sempurna Tbk	1	1	0.0930367	-0.2402027	0
101	PT Bristol-Myers Squibb Indonesia Tbk	0	0	0	0	0
102	PT Darya-Varia Laboratoria Tbk	0	0	0	0	0
103	PT Indofarma (Persero) Tbk	1	1	-0.214876	0.0588235	0
104	PT Kalbe Farma Tbk	1	1	0.0163934	0.0441176	0
105	PT Kimia Farma (Persero) Tbk	0	0	0	0	0
106	PT Merck Tbk	0	0	0	0	0
107	PT Pyridam Farma Tbk	1	1	1.080226	-1.2190016	0
108	PT Schering Plough Indonesia Tbk	0	0	0	0	0
109	PT Tempo Scan Pacific Tbk	0	0	0	0	0
110	PT Mandom Indonesia Tbk	1	1	-0.0409982	0.0110497	0
111	PT Mustika Ratu Tbk	0	0	0	0	0
112	PT Unilever Indonesia Tbk	0	0	0	0	0

APPENDIX 5
REGRESSION RESULT
ON 112 COMPANIES
FROM YEAR 2003 - 2004

Regression on Equation 3.4:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	E[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: P

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.980[a]	.960	.960	2.5002507594546	1.771

a. Predictors: (Constant), E

b. Dependent Variable: P

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33097.448	1	33097.448	5294.529	.000[a]
	Residual	1387.778	222	6.251		
	Total	34485.226	223			

a. Predictors: (Constant), E

b. Dependent Variable: P

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.035	.167		6.180	.000		
	E	-1.444	.020	-.980	-72.764	.000	1.000	1.000

a. Dependent Variable: P

Regression on Equation 3.5:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	ETET1[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: PTPT10

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.786[a]	.617	.616	4.0940435337417	1.282

a. Predictors: (Constant), ETET1

b. Dependent Variable: PTPT10

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6006.668	1	6006.668	358.368	.000[a]
	Residual	3720.985	222	16.761		
	Total	9727.652	223			

a. Predictors: (Constant), ETET1

b. Dependent Variable: PTPT10

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.268	.274		-.975	.331		
	ETET1	-.551	.029	-.786	-18.931	.000	1.000	1.000

a. Dependent Variable: PTPT10

Regression on Equation 3.6:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	DE, E[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: P

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.983[a]	.965	.965	2.3215461560630	1.872

a. Predictors: (Constant), DE, E

b. Dependent Variable: P

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33294.130	2	16647.065	3088.752	.000[a]
	Residual	1191.096	221	5.390		
	Total	34485.226	223			

a. Predictors: (Constant), DE, E

b. Dependent Variable: P

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	1.056	.155		6.792	.000		
	E	-1.452	.018	-.985	-78.593	.000	.996	1.004
	DE	1.710	.283	.076	6.041	.000	.996	1.004

a. Dependent Variable: P

Regression on Equation 3.9:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	DETET1, ETET1[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: PTPT10

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.786[a]	.618	.614	4.1027357282032	1.280

a. Predictors: (Constant), DETET1, ETET1

b. Dependent Variable: PTPT10

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6007.683	2	3003.842	178.455	.000[a]
	Residual	3719.969	221	16.832		
	Total	9727.652	223			

a. Predictors: (Constant), DETET1, ETET1

b. Dependent Variable: PTPT10

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.266	.275		-.966	.335		
	ETET1	-.551	.029	-.786	-18.871	.000	.996	1.004
	DETET1	.123	.501	.010	.246	.806	.996	1.004

a. Dependent Variable: PTPT10

Regression on Equation 3.10:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	METET1, E[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: P

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.980[a]	.961	.961	2.468263023751365	1.801

a. Predictors: (Constant), METET1, E

b. Dependent Variable: P

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33138.823	2	16569.412	2719.720	.000[a]
	Residual	1346.403	221	6.092		
	Total	34485.226	223			

a. Predictors: (Constant), METET1, E

b. Dependent Variable: P

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	1.043	.165		6.307	.000		
	E	-1.444	.020	-.979	-73.692	.000	1.000	1.000
	METET1	-1.948	.748	-.035	-2.606	.010	1.000	1.000

a. Dependent Variable: P

Regression on Equation 3.11:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	METET1, ETET1[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: PTPT10

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.787[a]	.620	.617	4.0895691148656	1.275

a. Predictors: (Constant), METET1, ETET1

b. Dependent Variable: PTPT10

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6031.521	2	3015.761	180.319	.000[a]
	Residual	3696.131	221	16.725		
	Total	9727.652	223			

a. Predictors: (Constant), METET1, ETET1

b. Dependent Variable: PTPT10

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.262	.274		-.955	.341		
	ETET1	-.550	.029	-.785	-18.920	.000	1.000	1.000
	METET1	-1.510	1.239	-.051	-1.219	.224	1.000	1.000

a. Dependent Variable: PTPT10

Regression on Equation 3.12:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	METET1, E, DE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: P

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.983[a]	.967	.967	2.2681913908374	1.914

a. Predictors: (Constant), METET1, E, DE

b. Dependent Variable: P

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33353.394	3	11117.798	2161.023	.000[a]
	Residual	1131.832	220	5.145		
	Total	34485.226	223			

a. Predictors: (Constant), METET1, E, DE

b. Dependent Variable: P

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.067	.152		7.020	.000		
	E	-1.452	.018	-.985	-80.444	.000	.996	1.004
	DE	1.793	.278	.079	6.458	.000	.988	1.012
	METET1	-2.341	.690	-.042	-3.394	.001	.992	1.008

a. Dependent Variable: P

Regression on Equation 3.13:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	DETET1, ETET1, METET1[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: PTPT10

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.788[a]	.621	.616	4.0932384365493	1.270

a. Predictors: (Constant), DETET1, ETET1, METET1

b. Dependent Variable: PTPT10

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6041.640	3	2013.880	120.199	.000[a]
	Residual	3686.012	220	16.755		
	Total	9727.652	223			

a. Predictors: (Constant), DETET1, ETET1, METET1

b. Dependent Variable: PTPT10

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.254	.275		-.925	.356		
	ETET1	-.551	.029	-.786	-18.917	.000	.996	1.004
	METET1	-1.914	1.344	-.064	-1.424	.156	.850	1.176
	DETET1	.421	.542	.035	.777	.438	.848	1.180

a. Dependent Variable: PTPT10

Regression on Equation 3.15:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	SA, GP[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: P

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.980[a]	.960	.960	2.4833491207893	1.673

a. Predictors: (Constant), SA, GP

b. Dependent Variable: P

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33122.314	2	16561.157	2685.438	.000[a]
	Residual	1362.912	221	6.167		
	Total	34485.226	223			

a. Predictors: (Constant), SA, GP

b. Dependent Variable: P

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.963	.174		5.531	.000		
	GP	-2.698	.066	-.554	-40.827	.000	.970	1.031
	SA	3.987	.060	.910	67.009	.000	.970	1.031

a. Dependent Variable: P

Regression on Equation 3.16:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	DSA, SA, GP, DGP[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: P

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.991[a]	.981	.981	1.7238272254670	1.959

a. Predictors: (Constant), DSA, SA, GP, DGP

b. Dependent Variable: P

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33834.450	4	8458.613	2846.503	.000[a]
	Residual	650.776	219	2.972		
	Total	34485.226	223			

a. Predictors: (Constant), DSA, SA, GP, DGP

b. Dependent Variable: P

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.773	.122		6.328	.000		
	GP	-2.287	.072	-.470	-31.648	.000	.391	2.557
	SA	4.343	.057	.991	76.245	.000	.510	1.961
	DGP	3.822	.338	.586	11.304	.000	.032	31.185
	DSA	-5.327	.373	-.735	-14.283	.000	.033	30.755

a. Dependent Variable: P

Regression on Equation 3.17:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	SATSAT1, GTGT10[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: PTPT10

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.722[a]	.522	.518	4.5869025104132	1.517

a. Predictors: (Constant), SATSAT1, GTGT10

b. Dependent Variable: PTPT10

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5077.884	2	2538.942	120.674	.000[a]
	Residual	4649.768	221	21.040		
	Total	9727.652	223			

a. Predictors: (Constant), SATSAT1, GTGT10

b. Dependent Variable: PTPT10

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	9.922E-02	.311		.319	.750		
	GTGT10	-3.691	.488	-.625	-7.562	.000	.317	3.156
	SATSAT1	-1.239	.892	-.115	-1.388	.166	.317	3.156

a. Dependent Variable: PTPT10

Regression on Equation 3.18:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	DSATSAT 1, GTGT10, DGTGT10, SATSAT1[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: PTPT10

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.817[a]	.668	.662	3.8423208770043	1.163

a. Predictors: (Constant), DSATSAT1, GTGT10, DGTGT10, SATSAT1

b. Dependent Variable: PTPT10

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6494.461	4	1623.615	109.975	.000[a]
	Residual	3233.191	219	14.763		
	Total	9727.652	223			

a. Predictors: (Constant), DSATSAT1, GTGT10, DGTGT10, SATSAT1

b. Dependent Variable: PTPT10

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.146	.263		-.554	.580		
	GTGT10	-.681	.576	-.115	-1.183	.238	.160	6.264
	SATSAT1	-9.458	1.238	-.876	-7.643	.000	.116	8.654
	DGTGT10	-.276	1.196	-.014	-.231	.818	.388	2.575
	DSATSAT1	10.955	1.598	.596	6.855	.000	.201	4.985

a. Dependent Variable: PTPT10

APPENDIX 6
REGRESSION RESULT ON
112 COMPANIES AFTER
REMOVING OUTLIERS
FROM YEAR 2003 - 2004

Regression on Equation 3.4:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	E[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: P

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.140[a]	.020	.015	1.9208730488797	.864

a. Predictors: (Constant), E

b. Dependent Variable: P

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.107	1	16.107	4.365	.038[a]
	Residual	804.366	218	3.690		
	Total	820.473	219			

a. Predictors: (Constant), E

b. Dependent Variable: P

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.071	.131		8.154	.000		
	E	.853	.408	.140	2.089	.038	1.000	1.000

a. Dependent Variable: P

Regression on Equation 3.5:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	ETET1[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: PTPT10

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.029[a]	.001	-.004	.373460627242574	1.004

a. Predictors: (Constant), ETET1

b. Dependent Variable: PTPT10

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.023	1	.023	.166	.684[a]
	Residual	27.197	195	.139		
	Total	27.220	196			

a. Predictors: (Constant), ETET1

b. Dependent Variable: PTPT10

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.123E-02	.027		1.171	.243		
	ETET1	-1.11E-02	.027	-.029	-.407	.684	1.000	1.000

a. Dependent Variable: PTPT10

Regression on Equation 3.6:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	DE, E[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: P

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.086[a]	.007	-.002	.82618379681176	1.654

a. Predictors: (Constant), DE, E

b. Dependent Variable: P

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.035	2	.518	.758	.470[a]
	Residual	137.881	202	.683		
	Total	138.916	204			

a. Predictors: (Constant), DE, E

b. Dependent Variable: P

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.841	.058		14.474	.000		
	E	.163	.234	.062	.695	.488	.626	1.598
	DE	.144	.380	.034	.379	.705	.626	1.598

a. Dependent Variable: P

Regression on Equation 3.9:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	DETET1, ETET1[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: PTPT10

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.153[a]	.023	.013	.37098844946483	1.602

a. Predictors: (Constant), DETET1, ETET1

b. Dependent Variable: PTPT10

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.636	2	.318	2.309	.102[a]
	Residual	26.563	193	.138		
	Total	27.199	195			

a. Predictors: (Constant), DETET1, ETET1

b. Dependent Variable: PTPT10

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.143E-02	.027		1.185	.237		
	ETET1	-2.26E-02	.032	-.051	-.698	.486	.953	1.049
	DETET1	.319	.149	.156	2.136	.034	.953	1.049

a. Dependent Variable: PTPT10

Regression on Equation 3.10:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	METET1, E[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: P

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.111[a]	.012	.003	.859364323386870	1.732

a. Predictors: (Constant), METET1, E

b. Dependent Variable: P

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.879	2	.940	1.272	.282[a]
	Residual	150.655	204	.739		
	Total	152.535	206			

a. Predictors: (Constant), METET1, E

b. Dependent Variable: P

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.859	.061		14.183	.000		
	E	.308	.198	.112	1.559	.121	.945	1.059
	METET1	-.458	.657	-.050	-.698	.486	.945	1.059

a. Dependent Variable: P

Regression on Equation 3.11:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	METET1, ETET1[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: PTPT10

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.038[a]	.001	-.009	.374316288183377	.795

a. Predictors: (Constant), METET1, ETET1

b. Dependent Variable: PTPT10

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.038	2	.019	.137	.872[a]
	Residual	27.182	194	.140		
	Total	27.220	196			

a. Predictors: (Constant), METET1, ETET1

b. Dependent Variable: PTPT10

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.059E-02	.027		1.142	.255		
	ETET1	-1.03E-02	.027	-.027	-.377	.707	.993	1.007
	METET1	-.101	.306	-.024	-.331	.741	.993	1.007

a. Dependent Variable: PTPT10

Regression on Equation 3.12:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	DE, METET1, E[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: P

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.112[a]	.013	-.002	.86133789575959	1.812

a. Predictors: (Constant), DE, METET1, E

b. Dependent Variable: P

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.928	3	.643	.866	.459[a]
	Residual	150.606	203	.742		
	Total	152.535	206			

a. Predictors: (Constant), DE, METET1, E

b. Dependent Variable: P

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.859	.061		14.148	.000		
	E	.272	.243	.098	1.117	.265	.626	1.596
	METET1	-.497	.675	-.054	-.736	.463	.898	1.114
	DE	.104	.405	.023	.257	.797	.597	1.674

a. Dependent Variable: P

Regression on Equation 3.13:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	DETET1, ETET1, METET1[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: PTPT10

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.182[a]	.033	.018	.370096809486420	1.932

a. Predictors: (Constant), DETET1, ETET1, METET1

b. Dependent Variable: PTPT10

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.900	3	.300	2.191	.091[a]
	Residual	26.299	192	.137		
	Total	27.199	195			

a. Predictors: (Constant), DETET1, ETET1, METET1

b. Dependent Variable: PTPT10

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.851E-02	.027		1.075	.284		
	ETET1	-2.22E-02	.032	-.050	-.686	.493	.953	1.049
	METET1	-.466	.335	-.110	-1.390	.166	.811	1.234
	DETET1	.416	.164	.203	2.528	.012	.781	1.281

a. Dependent Variable: PTPT10

Regression on Equation 3.15:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	SA, GP[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: P

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.667[a]	.445	.439	.55899014421653	1.953

a. Predictors: (Constant), SA, GP

b. Dependent Variable: P

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47.767	2	23.883	76.434	.000[a]
	Residual	59.682	191	.312		
	Total	107.449	193			

a. Predictors: (Constant), SA, GP

b. Dependent Variable: P

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.403	.049		8.297	.000		
	GP	1.267	.151	.993	8.390	.000	.208	4.819
	SA	-.611	.183	-.394	-3.332	.001	.208	4.819

a. Dependent Variable: P

Regression on Equation 3.16:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	DSA, GP, SA, DGP[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: P

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.681[a]	.464	.453	.565128542601774	1.690

a. Predictors: (Constant), DSA, GP, SA, DGP

b. Dependent Variable: P

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	52.529	4	13.132	41.119	.000[a]
	Residual	60.680	190	.319		
	Total	113.209	194			

a. Predictors: (Constant), DSA, GP, SA, DGP

b. Dependent Variable: P

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.393	.050		7.931	.000		
	GP	1.217	.204	.933	5.978	.000	.116	8.638
	SA	-.332	.258	-.210	-1.286	.200	.106	9.423
	DGP	.143	.295	.088	.486	.628	.087	11.526
	DSA	-.527	.373	-.265	-1.416	.159	.080	12.430

a. Dependent Variable: P

Regression on Equation 3.17:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	SATSAT1, GTGT10[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: PTPT10

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.122[a]	.015	.005	.37179583299808	1.549

a. Predictors: (Constant), SATSAT1, GTGT10

b. Dependent Variable: PTPT10

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.403	2	.202	1.459	.235[a]
	Residual	26.817	194	.138		
	Total	27.220	196			

a. Predictors: (Constant), SATSAT1, GTGT10

b. Dependent Variable: PTPT10

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	2.053E-02	.028		.740	.460		
	GTGT10	.168	.099	.122	1.707	.089	.999	1.001
	SATSAT1	-2.36E-03	.198	-.001	-.012	.991	.999	1.001

a. Dependent Variable: PTPT10

Regression on Equation 3.18:

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	DSATSAT 1, GTGT10, DGTGT10, SATSAT1[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: PTPT10

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-W atson
1	.236[a]	.056	.036	.36763746296466	1.757

a. Predictors: (Constant), DSATSAT1, GTGT10, DGTGT10, SATSAT1

b. Dependent Variable: PTPT10

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ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.518	4	.379	2.808	.027[a]
	Residual	25.680	190	.135		
	Total	27.198	194			

a. Predictors: (Constant), DSATSAT1, GTGT10, DGTGT10, SATSAT1

b. Dependent Variable: PTPT10

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.778E-02	.028		.640	.523		
	GTGT10	8.706E-02	.133	.057	.655	.513	.667	1.499
	SATSAT1	3.156E-03	.334	.001	.009	.992	.685	1.459
	DGTGT10	.602	.258	.192	2.337	.020	.736	1.359
	DSATSAT1	-.947	.686	-.112	-1.380	.169	.761	1.314

a. Dependent Variable: PTPT10

APPENDIX 7
REGRESSION RESULT
AFTER DATA TRANSFORMATION &
DO HETEROSCEDASTICITY REGRESSION
FROM YEAR 2003 - 2004

Table 4.45

Equation 3-4

Dependent Variable: D(P)
Method: Least Squares
Date: 03/20/06 Time: 10:01
Sample(adjusted): 2 220
Included observations: 219 after adjusting endpoints
Newey-West HAC Standard Errors & Covariance (lag truncation=4)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.051500	0.072100	-0.714276	0.4758
D(E)	0.904773	0.331175	2.732013	0.0068

R-squared	0.046285	Mean dependent var	-0.054245
Adjusted R-squared	0.041890	S.D. dependent var	2.048541
S.E. of regression	2.005176	Akaike info criterion	4.238431
Sum squared resid	872.4985	Schwarz criterion	4.269381
Log likelihood	-462.1082	F-statistic	10.53119
Durbin-Watson stat	2.633344	Prob(F-statistic)	0.001359

D = Difference, after transform the autocorrelation problem.

Table 4.46

Equation 3-5

Dependent Variable: D(PTPT10)
Method: Least Squares
Date: 03/20/06 Time: 11:56
Sample(adjusted): 2 197
Included observations: 196 after adjusting endpoints
Newey-West HAC Standard Errors & Covariance (lag truncation=4)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.002000	0.012581	-0.158943	0.8739
D(ETET1)	-0.017660	0.017998	-0.981200	0.3277

R-squared	0.003280	Mean dependent var	-0.001257
Adjusted R-squared	-0.001857	S.D. dependent var	0.374654
S.E. of regression	0.375002	Akaike info criterion	0.886382
Sum squared resid	27.28157	Schwarz criterion	0.919832
Log likelihood	-84.86544	F-statistic	0.638464
Durbin-Watson stat	2.911313	Prob(F-statistic)	0.425245

D = Difference, after transform the autocorrelation problem.

Table 4.47

Equation 3-6

Dependent Variable: D(P)
Method: Least Squares
Date: 03/20/06 Time: 12:15
Sample(adjusted): 2 205
Included observations: 204 after adjusting endpoints
Newey-West HAC Standard Errors & Covariance (lag truncation=4)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000347	0.037214	-0.009319	0.9926
D(E)	0.175630	0.474121	0.370432	0.7115
D(DE)	0.511803	0.487187	1.050526	0.2947

R-squared	0.032633	Mean dependent var	-0.001890
Adjusted R-squared	0.023008	S.D. dependent var	1.072378
S.E. of regression	1.059970	Akaike info criterion	2.968954
Sum squared resid	225.8307	Schwarz criterion	3.017750
Log likelihood	-299.8333	F-statistic	3.390286
Durbin-Watson stat	2.961905	Prob(F-statistic)	0.035638

D = Difference, after transform the autocorrelation problem.

Table 4.48

Equation 3-9

Dependent Variable: PTPT10
Method: Least Squares
Date: 03/24/06 Time: 10:00
Sample: 1 196
Included observations: 196
Newey-West HAC Standard Errors & Covariance (lag truncation=4)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.031427	0.034971	0.898662	0.3700
ETET1	-0.022607	0.017898	-1.263058	0.2081
DETET1	0.318501	0.126963	2.508614	0.0129

R-squared	0.023371	Mean dependent var	0.031162
Adjusted R-squared	0.013250	S.D. dependent var	0.373471
S.E. of regression	0.370988	Akaike info criterion	0.869896
Sum squared resid	26.56306	Schwarz criterion	0.920071
Log likelihood	-82.24982	F-statistic	2.309262
Durbin-Watson stat	1.602345	Prob(F-statistic)	0.102073

Table 4.49

Equation 3-10

Dependent Variable: D(P)
Method: Least Squares
Date: 03/27/06 Time: 12:24
Sample(adjusted): 2 207
Included observations: 206 after adjusting endpoints
Newey-West HAC Standard Errors & Covariance (lag truncation=4)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.002134	0.092256	-0.023131	0.9816
D(E)	1.796325	1.144441	1.569609	0.1181
D(METET1)	4.561975	3.056690	1.492456	0.1371

R-squared	0.199312	Mean dependent var	-0.036127
Adjusted R-squared	0.191423	S.D. dependent var	3.114139
S.E. of regression	2.800261	Akaike info criterion	4.911758
Sum squared resid	1591.817	Schwarz criterion	4.960222
Log likelihood	-502.9111	F-statistic	25.26598
Durbin-Watson stat	2.886901	Prob(F-statistic)	0.000000

D = Difference, after transform the autocorrelation problem.

Table 4.50

Equation 3-11

Dependent Variable: D(PTPT10)
Method: Least Squares
Date: 03/27/06 Time: 11:54
Sample(adjusted): 2 197
Included observations: 196 after adjusting endpoints
Newey-West HAC Standard Errors & Covariance (lag truncation=4)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.002176	0.010157	-0.214205	0.8306
D(ETET1)	-0.013881	0.023151	-0.599581	0.5495
D(METET1)	-0.094117	0.274312	-0.343103	0.7319

R-squared	0.005001	Mean dependent var	-0.001594
Adjusted R-squared	-0.005310	S.D. dependent var	0.333680
S.E. of regression	0.334565	Akaike info criterion	0.663215
Sum squared resid	21.60318	Schwarz criterion	0.713390
Log likelihood	-61.99507	F-statistic	0.484986
Durbin-Watson stat	2.973147	Prob(F-statistic)	0.616454

D = Difference, after transform the autocorrelation problem.

Table 4.51

Equation 3-12

Dependent Variable: P
Method: Least Squares
Date: 03/27/06 Time: 12:02
Sample: 1 207
Included observations: 207
Newey-West HAC Standard Errors & Covariance (lag truncation=4)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.858662	0.073944	11.61229	0.0000
E	0.271604	0.438235	0.619767	0.5361
DE	0.104203	0.423452	0.246079	0.8059
METET1	-0.496965	0.453171	-1.096639	0.2741

R-squared	0.012642	Mean dependent var	0.874073
Adjusted R-squared	-0.001950	S.D. dependent var	0.860499
S.E. of regression	0.861338	Akaike info criterion	2.558475
Sum squared resid	150.6063	Schwarz criterion	2.622875
Log likelihood	-260.8021	F-statistic	0.866366
Durbin-Watson stat	1.812228	Prob(F-statistic)	0.459431

Table 4.52

Equation 3-13

Dependent Variable: PTPT10
Method: Least Squares
Date: 03/27/06 Time: 12:05
Sample: 1 196
Included observations: 196
Newey-West HAC Standard Errors & Covariance (lag truncation=4)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.028515	0.025517	1.117470	0.2652
ETET1	-0.022176	0.016944	-1.308802	0.1922
METET1	-0.465998	0.288435	-1.615605	0.1078
DETET1	0.415600	0.193467	2.148177	0.0330

R-squared	0.033096	Mean dependent var	0.031162
Adjusted R-squared	0.017988	S.D. dependent var	0.373471
S.E. of regression	0.370097	Akaike info criterion	0.870093
Sum squared resid	26.29856	Schwarz criterion	0.936993
Log likelihood	-81.26909	F-statistic	2.190627
Durbin-Watson stat	1.931892	Prob(F-statistic)	0.090508

Table 4.53

Equation 3-15

Dependent Variable: P
Method: Least Squares
Date: 03/27/06 Time: 12:07
Sample: 1 194
Included observations: 194
Newey-West HAC Standard Errors & Covariance (lag truncation=4)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.402955	0.050826	7.928073	0.0000
GP	1.267113	0.279964	4.525983	0.0000
SA	-0.610769	0.355276	-1.719138	0.0872

R-squared	0.444556	Mean dependent var	0.734968
Adjusted R-squared	0.438740	S.D. dependent var	0.746143
S.E. of regression	0.558990	Akaike info criterion	1.689973
Sum squared resid	59.68177	Schwarz criterion	1.740507
Log likelihood	-160.9274	F-statistic	76.43449
Durbin-Watson stat	1.952591	Prob(F-statistic)	0.000000

Table 4.54

Equation 3-16

Dependent Variable: D(P)
Method: Least Squares
Date: 03/27/06 Time: 12:11
Sample(adjusted): 2 195
Included observations: 194 after adjusting endpoints
Newey-West HAC Standard Errors & Covariance (lag truncation=4)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.005646	0.027071	0.208549	0.8350
D(GP)	0.783735	0.263777	2.971209	0.0034
D(SA)	0.179462	0.360807	0.497390	0.6195
D(DGP)	1.171764	0.501904	2.334638	0.0206
D(DSA)	-1.701002	0.567017	-2.999913	0.0031

R-squared	0.520706	Mean dependent var	-0.004551
Adjusted R-squared	0.510563	S.D. dependent var	1.019040
S.E. of regression	0.712918	Akaike info criterion	2.186535
Sum squared resid	96.05965	Schwarz criterion	2.270758
Log likelihood	-207.0939	F-statistic	51.33258
Durbin-Watson stat	2.934553	Prob(F-statistic)	0.000000

D = Difference, after transform the autocorrelation problem.

Table 4.55

Equation 3-17

Dependent Variable: D(PTPT10)
Method: Least Squares
Date: 03/27/06 Time: 12:14
Sample(adjusted): 2 197
Included observations: 196 after adjusting endpoints
Newey-West HAC Standard Errors & Covariance (lag truncation=4)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.002348	0.014302	0.164177	0.8698
D(GTGT10)	0.105494	0.100989	1.044606	0.2975
D(SATSAT1)	0.163739	0.137539	1.190498	0.2353
R-squared	0.012194	Mean dependent var		0.002114
Adjusted R-squared	0.001958	S.D. dependent var		0.462803
S.E. of regression	0.462350	Akaike info criterion		1.310199
Sum squared resid	41.25714	Schwarz criterion		1.360374
Log likelihood	-125.3995	F-statistic		1.191282
Durbin-Watson stat	2.853203	Prob(F-statistic)		0.306055

D = Difference, after transform the autocorrelation problem.

Table 4.56

Equation 3-18

Dependent Variable: PTPT10
Method: Least Squares
Date: 03/27/06 Time: 12:17
Sample: 1 195
Included observations: 195
Newey-West HAC Standard Errors & Covariance (lag truncation=4)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.017776	0.031180	0.570109	0.5693
GTGT10	0.087057	0.101930	0.854093	0.3941
SATSAT1	0.003156	0.268454	0.011756	0.9906
DGTGT10	0.602228	0.157017	3.835433	0.0002
DSATSAT1	-0.946918	0.648713	-1.459688	0.1460
R-squared	0.055808	Mean dependent var		0.031322
Adjusted R-squared	0.035930	S.D. dependent var		0.374426
S.E. of regression	0.367637	Akaike info criterion		0.861868
Sum squared resid	25.67989	Schwarz criterion		0.945791
Log likelihood	-79.03209	F-statistic		2.807569
Durbin-Watson stat	1.757192	Prob(F-statistic)		0.026927