THE EFFECT OF CASH FLOW INFORMATIONS TO THE STOCK PRICE OR THE STOCK TRADING VOLUME ON THE JAKARTA STOCK EXCHANGE DURING THE MONETARY CRISIS

A THESIS

Presented as Partial Fulfillment of the Requirements to Obtain the Bachelor Degree in Accounting Department

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INTERNATIONAL PROGRAM

FACULTY OF ECONOMICS

ISLAMIC UNIVERSITY OF INDONESIA

YOGYAKARTA

2004

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On June 30, 2004
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Tiada kekayaan lebih utama daripada akal. Tiada kepapaan lebih menyedihkan daripada kebodohan.
Tiada warisan lebih baik daripada pendidikan.
(Imam Ali bin Abi Thalib r.a.)

ACKNOWLEDGEMENT

IN THE NAME OF ALLAH, THE MOST GRACIOUS, THE MOST MERCIFUL

All praises goes to ALLAH the Almighty, the Lord of all that exists. May ALLAH peace and blessing be upon His final Prophet and Messenger, Muhammad, his family, his companions and all muslims also muslimats. O ALLAH! Thank you for showering me with love and mercy. There is no power or might except by ALLAH. ALLAH SWT The Most Gracious, The Most Merciful who has bestowed upon me, the will and ability to make this thesis. Without whom I am helpless. God alone we worship and to God alone we shall return. I love You so much. Please, love me too my Lord. O The Great, please protect my family too, our act of devotion, our soul and body also our wealth. Amen

My sincere gratitude and appreciation go to Bapak Yunan Najamuddin Drs., MBA, as thesis advisor. Thank you Pak for your patience, you have never been bored to lead me.

I would like to extend my gratitude to Ibu Sari Yunan, for your care and understanding. Thank you so much for your advises.

My appreciation also goes to mbak Ani Pujiastuti, S.Pd as my language advisor, thank you for your time that you have spent for me to correct my English grammar. I will never forget your kindness.

I also would like to extend my gratitude to Dr. Asma'i Ishak, M Buss, as the Director of the International Program and all honorable lecturers in Economics

Faculty, Indonesian Islamic University especially those who have ever taught me, thank you for your kindness. I hope ALLAH blesses you all. Amen.

To my beloved sister the late Ratri Mutiqanah, even though you are not here with us anymore, I dedicate my thesis for you. You used to ask me when will I graduate from this university. You do not want to wait for me to finish my thesis but I know you are happy in your new place and you must know sist, I can not stop my tears if I remember you. I love and miss you so much. I realize this is ALLAH's will, so insyaALLAH we will be together again in paradise.

My wise parents, Bapak H Slamet SE and Bunda HJ Tenny Saptorestuningtyas, I am sorry for making you wait for me to finish my study. I know both of you are disappointed but in my pray to ALLAH, I always ask Him, insyaALLAH I can make you happy and proud of me but in different way someday. Amen.

My cute sister and brothers, Hj Mutia Rahmah Yuniarti, H Aji Mahdi Wirawan, and H Imam Mubyar Surastra. Thanks for your love, spirit, cheers, and kindness. I hope we can make our parents and the late Mbak Mutiq happy and proud with us. Amen.

My big family, Eyang Sastromihardjo in Klaten and Eyang Soedjono in Blitar. Om Suraji in Klaten who always accompanies and drives me from Yogya-Klaten or the other way around to visit my lonely grandmom. My yangtie in Blitar I apologize because I seldom visit you there except at the led Day's. Pa'de and Bu'de Aris in Surabaya, I like the cookies which you made, Om Icon and Tante Lina in Jakarta who always support me to finish my study soon and ask me to be

in a hurry in looking for a job, I know you want me to become career woman like you, aunt, Om Nardjo and Tante Roelly my funny aunty in Surabaya, you must learn to fast , Om Denny and Tante Ima in Bandung ,and my little aunty, Tante Richa, I hope you can find your best soul mate this year, do not give up, always pray and always hunt for it. Bulek Lies, Om Kasimo, Bulek Yem, Bulek Tie in Klaten thank you very much. For my cousins and nephew, I hope we can make or do the best thing for our big family. Also for my relatives whom I can not explain one by one, where ever you are, especially, in Sraten, Belang Wetan, Klaten. I love the place and you all. ALLAH SWT blesses us.

All my friends in IP accounting 97, especially for Roositawati (O'ong), Nunung (u'ung), hi it's me, I will never forget that we have ever been The Three Musketeers since the years early in UII until now, all for one, one for all. Do not forget our credo guys. I remembered, one day, we had a big fight but that did not last for 15 minutes, we became friend again and gave each others big hugs like Teletubbies. Tuti (tutiyem), I remember when you defended my division in RAT Kopma, you were really a brave girl. Yuwati (yo), my innocent friend, do not rush yourself with your choice, you are a beautiful girl. It is easy for you to get a man. You must find your real Jerry Yan as your soul mate. I know you know what you want.

Sari (yem), I miss so much and thank you for the comprehension also the nice days you offered me in our crazy boarding house, you know friend, I have been loosing you. Ethik, do not make your Dedi waiting so long with your decision, if I

were you, I will say, yes I do. For Desy, Fara, and Mitha, I miss you all; I hope we can have 'arisan' together someday.

I also would like to thank to IP's crews, mas Irwanto, mas Aris, mbak Devi, and mbak Fani thank you for the nice cooperate.

My friend in IA's boarding house, mbak Endang, I hope you can find your true man soon and thank you for everything; mbak Indang, do not be sad mba, I will pray for you and I hope you can get your new baby soon; Ika JKT, you always get in touch with me even though we in long distance, you really care of me, insyaALLAH I will visit you soon and we can have the singing concert again, ok!By the way, we can not have a duet anymore but a trio, of course with your new baby ha ha ha; mbak Prita, Diah, Ina, Nelly, Hela, Utin, Rieke, Yuli, Winda, Gina, Vida, Erin, Angga, Chika, Melky, Desta, Indri NTB, Indri Boyolali, Ika Purwokerto, Dinar, Syifra Khan, Aini, Bita, Pipin, Vivi, Nisa, Ratih Banyuwangi, Vina, Nova and mbak Sri, thank you for your pray, care, love, support and our nice friendship.

My appreciation goes to my Fahmi who always become my clown when I am sad, you can make me laugh anymore. Thanks for your understanding for being, polite, honest and care. I miss your mother 'legit' cake. May be some day you can bring it again to me. I miss your family and hope ALLAH blesses you and your family.

I can not say anything to my Fanny Kurniawan S.E. , except, thank you so much for everything.

For Angelus, we have different belief but we have nice friendship. Thanks for understanding me.

Mas Donny Sulistyo S.E. Thanks you for your pray, cares, supports, laughs, joys, advices, patience, time which you have spent with me and everything that you have given to me. There is no tired word for you to understand me.

Bapak Sulistiardjo, B. Sc., and Ibu Enny Rusminiwati, S.H, thank you for support and for treating me like your daughter. Mas Andi and mbak Nur, mas Sonny and mbak Mirna, Deddy and Ditta thank you for your kindness and for treating me like a sister.

Thank also to everyone that I can not mention one by one who have helped me in making this thesis.

To everyone who read my thesis, I hope it can be useful for your reference. I hope ALLAH SWT always blesses us. Amen.

Yogyakarta, May 2004

Hj Ratih Dian Sulianti

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ABSTRACTS

Hj Ratih Dian Sulianti (2004). **The Effect of Cash Flow Informations to The Stock Price or The Stock Trading Volume on The Jakarta Stock Exchange During The Monetary Crisis.** Accounting Department, Economic Faculty. Universitas Islam Indonesia. Yogyakarta.

The Indonesian Institute of Accountant (IAI) published the Statement of Financial Accounting Standard (PSAK) no. 2 concerning the Cash Flow Statement which obliges companies to publish the statements of cash flow began in January 1st, 1995.
The objective of this research is to examine the effects of cash flows information to the stock price or stock trading volume on the Jakarta stock exchange for the year 1998 until 2003.

There are 10 firms which are listed in Jakarta stock exchange that are included in LQ45 and active traded were taken as the data in this research. The data from audited financial statements from 1998 until 2003 were taken from Jakarta stock exchange corner in Universitas Islam Indonesia. Yogyakarta. The statistic method used to test hypotheses is Bivariate Linear Regression and Multiple Regression analysis.

The empirical results indicated that there are no significant effects between cash flows information which consist of cash flow from operating activities (CFOp), cash flow from investing activities (CFIn), cash flow from financing activities (CFFi), and the total of cash flow component (CFOp), (CFIn), (CFFi) to stock price in Jakarta stock exchange and also there are no significant effects among CFOp, CFIn, CFFi and total of CFOp, CFIn, CFFi to stock trading volume in Jakarta stock exchange for year 1998 until 2003. The reason was that almost the investors in Indonesia just speculate in investing their fund especially during monetary crisis which is hit Indonesia. The investors tend to see rumors, politic condition, investing trend and so on than using cash flow information as a consideration tool in making their investment decision.

ABSTRAK

Hj Ratih Dian Sulianti (2004). **Pengaruh Informasi Arus Kas pada Harga Saham atau Volume Perdagangan Saham di Bursa Efek Jakarta Selama Krisis Moneter**. Jurusan Akuntansi, Fakultas Ekonomi. Universitas Islam Indonesia. Yogyakarta.

Ikatan Akuntansi Indonesia (IAI) mengeluarkan Pernyataan Standar Akuntansi Keuangan (PSAK) nomer 2 mengenai keharusan perusahaan menyusun laporan arus kas dimulai pada 1 Januari 1995.
Tujuan dari penelitian ini adalah untuk menguji pengaruh informasi arus kas pada harga saham atau volume perdagangan saham di Bursa Efek Jakarta tahun 1998 sampai dengan 2003.

Penelitian ini mengambil data sebanyak 10 perusahaan yang terdaftar di Bursa Efek Jakarta yang termasuk saham LQ45 dan aktif di perdagangkan. Data laporan keuangan yang telah diaudit diambil dari pojok Bursa Efek Jakarta di Universitas Islam Indonesia, Yogyakarta. Metode statistik yang digunakan untuk menguji hipotesa yang ada adalah Analisis Regresi Linear Dua-Variabel dan Analisis Regresi Majemuk.

Hasil dari penelitian ini menunjukan bahwa tidak ada pengaruh signifikan antara informasi arus kas yang terdiri dari arus kas dari aktivitas operasi (CFOp), arus kas dari aktivitas investasi (CFIn), arus kas dari aktivitas pendanaan (CFFi) dan total komponen arus kas yang terdiri dari (CFOp), (CFIn), (CFFi) pada harga saham atau volume perdagangan saham di Bursa Efek Jakarta pada tahun 1998 sampai dengan 2003. Ini disebabkan oleh banyaknya penanam modal di Indonesia hanya berspekulasi dalam menginvestasikan dananya khususnya selama krisis moneter yang melanda Indonesia. Pemodal cenderung untuk melihat rumor, situasi politik, trend investasi dan sebagainya dari pada menggunakan informasi yang terkandung pada laporan arus kas sebagai bahan pertimbangan pemodal dalam mengambil keputusan investasi.

CHAPTER I

INTRODUCTION

1.1. Background of the Study

Monetary crisis which hit Indonesia and other countries in Asia area around July 1997 has given the bad impact especially for our economics matters. This condition has influenced in all business sectors in Indonesia both for go public enterprise as well as for government or private company. Monetary crisis in Indonesia was stimulated by from the market speculator acts that has caused the Rupiah's is depreciated from around Rp 2444 for $ 1 to become around Rp 8000 in the end of 1997.

One of the institutions which got impact from monetary crisis is stock exchange. The stock exchange has a close connection and parallel relationship with the economy condition of the country; it is the reason why the stock exchange activities depend on the economics condition.

Market share is one of the alternatives for the company to get fund or other capital and also as an effective media to distribute and invest the fund which enables the investor to get a profit or benefit. Before someone or a company invests their fund in share, it needs some analysis, whether the investments are suitable or not, or whether or not it can yield profit.

Financial reporting presents information which is need by investors and other users in making rational investment. Financial reporting system which generates financial information for external users encompasses four

principal financial statements: balance sheet, income statement, statement of cash flow, and statement of stockholder's equity. Offering statement of cash flow can help the investor or other users in assessing the amounts, timing, and uncertainty of prospective cash receipts from dividends and the proceed from the sale or buy securities.

Statement of Financial Accounting Concepts (SFAC) No: 1 identifies the objectives of financial reporting by business enterprise. One of them is preparing information about cash flow prospect to help investor and creditor in evaluating the prospect of cash flow of certain company (SFAC 1978: Para 37-39). Statement of Financial Accounting Standard (SFAS) No: 95 about Statement of Cash Flow recommended entering the cash flow statement as a part of financial statement with the aim of giving potential benefit from the cash flows to estimate company liquidity, flexibility of risk and return finance (SFAC No: 95 Para 52). In *Standar Akuntansi Keuangan* (SAK) No: 2 it is stated that company must arrange the statement of cash flow and provide this statement as an integral part of financial statement for certain period.

This research is the replication of research by Lena Tan Chooi Yen (1999). Besides, regarding *Standar Akuntansi Keuangan* (SAK) No: 2, Cash Flow Statement as a part of the financial statement is compulsory to be published since 1st of January 1995, the writer is inspired to investigate the effects of cash flow information to stock price or stock trading volume on Jakarta stock exchange during monetary crisis because the regulation about

the compulsoriness of doing cash flow statement on financial statement in Indonesia is relatively new, so the statement of cash flow is rarely inserted on it. And also there has been no research yet about the effects of cash flow components to stock price or stock trading volume during monetary crisis in Indonesia. This research will examine the effect of information of cash flow to stock trading volume or stock price in Jakarta stock exchange during the monetary crisis.

1.2. Problem Identification

The objectives of financial reporting should provide information that is : (1) useful to those making investment and credit decision that have a reasonable understanding of business and economic activities; (2) helpful to present and potential investors, creditors, and other users in assessing the amounts, timing and uncertainty of future cash flows; and (3) about economic resources, the claims to those resources, and the changes in them. (Kyeso and Wygant, 2001).

Many people in the world admit that stock market can be a good mean to mobilize their fund if it is handled with professionally. The factors that may influence stock market are all informations including rumors about the companies which listed in JSX, our country political prudence, stock supply and demand, international economy condition and so on. Therefore, it is important for us to know about the effects of cash flows information to

the stock trading volume or stock price on Jakarta stock exchange during monetary crisis which was happened in Indonesia.

1.3. Problem Formulation

Based on the problems identification, the problems are formulated as follows:

1. Do the cash flow informations have effects on stock price in Jakarta stock exchange from year 1998 to 2003?
2. Do the cash flow informations have effects on stock trading volume in Jakarta stock exchange from year 1998 to 2003?

1.4. Limitation of Research Area

The data of this study are LQ45 stocks which are listed in Jakarta stock exchange since 1998 to 2003.

1.5. Research Objectives

The objective of this research is giving the empirical evidences whether the cash flow information can affect the stock price or the stock trading volume in Jakarta stock exchange in year 1998 until 2003.

1.6. Research Contributions

1. The purpose of this research is to explore more about cash flow information especially its effects to stock trading volume and stock price in Jakarta stock exchange.

2. This research will also be useful for many parties who will take investment decision or just want to know about cash flow information related with the stock trading volume and stock price in Jakarta stock exchange.

1.7. Definition of Terms

In order to avoid the confusion in understanding the keywords in this thesis, below are the explanations describing the terms used in this study.

1. The statement of cash flows.

   A primary financial statement that reports the cash receipt, cash payment and net change resulting from the operating, investing, and financial activities of and enterprise during a period in a format that reconciles the beginning and ending the cash balance. (Kyeso and Wygant 1987; 114).

2. Information content of cash flow statement.

   Relevant information about cash receipt and cash payment of an enterprise, the statement of cash flows reports (1) the cash effects of operations during a period, (2) investing transaction, (3) financing transaction, and (4) the net increase or decrease in cash during the period.[1] (Kyeso and Wygant 2001; 206)

[1] The basis recommended by the FASB is actually "cash and cash equivalent." Cash equivalents are short term, highly liquid investments such as treasury bill, commercial paper, and money market funds purchased with cash that is in excess of immediate needs.

3. Component of cash flows.

   (1) Operating activities, involve the cash effects of transactions that enter into the determination of net income.

   (2) Investing activities include making and collecting loans and acquiring and disposing of investments (both debt and equity) and property, plant, and equipment.

   (3) Financing activities, involve liability and owners' equity items. They include (a) obtaining resources from owners and providing them with a return on (and a return of) their investment and (b) borrowing money from creditors and repaying the amount borrowed. (Kyeso and Wygant 2001; 207)

4. Stock

   Share of ownership of a corporation. (Warren, reeve, and fess 2002; glossary)

5. Jakarta stock exchange.

   An institution in Indonesia which has principal services to operated security trade activity at secondary market. (Hunan, 1994; 24)

6. LQ45 stock

   Including the stock that has high market value and liquidity. Also consists of 45 elected stocks that can represent market. (E.A Koetin 1997;506).

CHAPTER II

REVIEW OF RELATED LITERATURE

2.1. Theoretical Review

The company financial statement provides information about the assets and liabilities of the firm and the income and cash flow generated by the firm. The impacts of transactions and other events are recorded in the relevant financial statement. The balance sheet shows assets, liabilities, and the equity account. The income statement reflects revenues, expenses, and gain and losses. Statement of stockholder equity reports capital transactions with owners. The statement of cash flow includes operating, investing, and financing inflow and outflow. Many transactions are reflected in more than one statements so that the entire set is required to evaluate the total impact.

2.1.1. The Statements of Cash Flow

A statement of cash flows is required as part of a full set of financial statements. It must be prepared in conformity with Generally Accepted Accounting Principles (GAAP). The statement is not required if the financial statement are prepared on a basis of accounting other than GAAP. The statement must be included in both annual and interim financial statement.

The statement of cash flows provided many benefits to the prepares and users of the statement, such as the following: enables the

assessment of the amount, timing, and uncertainty surrounding future cash flows; furnishes a reconciliation between net income and cash flow from operation; provides the net effects of operating transactions on profit and cash flow; indicates the impact on the company financial status of its investing and financing transaction; shows the company ability to obtain financing; provides important information about the entity cash receipts and cash payments for the period; shows the company ability to generate recurring cash earnings; evaluates the company ability to pay debt when due; allows for the evaluation of the company ability to pay its expenses and conduct normal operation; shows the entity ability to pay dividends; and provides the reason for the change in cash and cash equivalent for the period.

Stephen (2001) stated that it is prohibited to present cash flow per share because doing so will give the false impression that such a statistic is as important as earnings per share, and the used of the term of funds should not be used because its ambiguity and misinterpretation.

2.1.2. The Method of Cash flow

There are two methods in preparing cash flow statement, direct method and indirect method. There are only a few literatures which discuss about three components contained in cash flow information. Many researchers only focus on operating activities on their research.

The direct method is preferred by Financial Accounting Standard Board (FASB) statement number 95. Under this method companies present cash flow from operating activities by major categories of gross receipts and gross payments and the resulting net amount. A company using the direct method should report separately operating cash receipt and operating cash payment. The only difference between the direct method and the indirect method is the presentation in the operating activities section of the statement of cash flows. The investing and financing section are identical under both methods. The direct method enables the user to comprehend better the relationship between the company profit and its cash earnings. The direct method shows that the amount of the net cash received or used in operating activities during the year equals the difference between the total amount of gross cash receipts and total gross cash payments applying to operating activities.

The indirect method is commonly used by companies in financial reporting because its simplicity, although it is less preferred approach. The company presents net cash flow from operating activities indirectly, by adjusting earnings to reconcile net income to net cash flow from operations. The indirect method emphasis changes in most current asset and current liability accounts as they apply to operating activities. Changes in current assets and currents liabilities relating to investing or financing activities such as short term loans or

short term notes payable not involving sales of goods or services should be presented as investing or financing activities. A disadvantage of the indirect method is possible user confusion to where the cash was received or paid to. The indirect method only shows adjustments to accrual basis net income to cash flow from operations in the operating activities section.

2.1.3. Cash Flow from Operating Activities

Operating activities apply to producing or selling merchandise or performing services. Under the direct method, items applying to income statements are presented in the operating activities section.

Cash inflows from operating activities include cash receipts from sales or servicing such as from customers, licenses, and lessees; interest and dividend receipts; proceeds received from insurance policy; refunds from suppliers; sale of trading securities; award received from a lawsuit; and other operating receipt.

Cash outflows from operating activities include cash paid to buy materials and merchandise purchases; cash paid for services; payment of general and administrative expenses; employee salary payments; payments to suppliers; insurances payments; advertising and promotion payments; payment for lawsuit damages; cash refunds such as to customers for inferior goods; interest payments; income tax payments; cash purchase of trading securities; payment of duties, fines,

and penalties; charitable contribution payments; and other operating cash payments.

2.1.4. Cash Flow from Investing Activities

Investing activities include making and collecting loans; purchasing and selling property, plant, and equipment; buying or selling available for sale or held maturity securities in other companies. But trading securities are considered operating activities.

Cash inflows from investing activities include proceeds received from selling fixed assets with the note that gain or losses on sales of fixed assets are included as investing activities along with the assets they relate to. These gain or losses are not included in net cash flows from operating items. Therefore, they need an adjustment to net income in obtaining cash flows from operation; selling available for sale or held maturity securities in other companies; and collecting on loans made to debtors.

Cash outflows for investing activities include acquiring fixed assets; buying available for sale or held to maturity securities of others companies; and granting loans to borrowers.

Cash flows for investing activities should only include advance payments, the down payments, or other payments at the date when fixed assets are bought, or shortly before and after. If there are principal payments on an installments loan at later dates, such

payments are include in financing activities. Any non cash elements of a transaction to buy fixed assets such as through debt incurrence is disclosed in a supplementary schedule titled non cash investment and financing activities. (Stephen 2001)

He also said that if company is bought or sold under the purchase method to account for a business combination, any cash paid or received is considered an investing activity. The fair market value of any assets acquired or liabilities incurred in such a transaction would be presented in the schedule of non cash investing and financing activities.

2.1.5. Cash Flow from Financing Activities

Financing activities include issuing or repurchasing a company's own stock, (common or preferred stock), paying cash dividends to stockholders and issuing or paying back short term or long term debt.

Cash inflows from financing activities include fund received from issuing the company's own short term or long term debt for examples bond payable, notes payables, and mortgage payable; fund received from selling the company's own equity securities includes the subsequent reissuance of treasury stock.

Cash outflows for financing activities include purchase of treasury stock; cash dividend payments, with the note dividends

declared but unpaid and stock dividends are non cash transaction and are presented in a supplementary schedule titled "non cash investing and financing activities"; retiring or paying off the principal on short term or long term debt includes payments of principal on capital lease obligations; other principal payments to long term creditors; and payment of debt issue costs.

Stephen (2001) expressed in his book that gain or losses from the early extinguishment of debt are part of the cash flow related to the repayment of the amount borrowed as financing activity. Such gains or losses are not an element of net cash flow from operating activities.

2.1.6. The Theories of Stock Price

There are two theories about the stock price. Both of them are the conventional theory and the confidence theory of stock price.

Richard (1992) in his book wrote that for many years, there has been a fundamental, orthodox, and conventional theory to explain the movement of stock prices and the basic cause of stock price movement in conventional theory is the anticipation of change in corporate earnings. According to conventional theory, all changes in fundamental condition are that they will affect the earnings of corporations, either individually or as a group. The change in earnings will affect the dividends. The belief is that earning is the most important single factor in determining stock prices. This theory

recognizes that the price of stock is the present value of all anticipated future dividends. However those dividends can only come from earnings except for liquidating dividend. Change in earnings will change the dividend and it can affect the prices of stocks. In this theory, the stock price will move in advance of changes in business and in advance of changes in earning power. The theory considers that the dividends must follow earnings and will change as earnings change. Based on the conventional theory of stock price, any condition or situation that indicates a change in earnings of a particular company or a specific industry, or many companies, or the entire economy will affect stock prices, which will move in advance of actual changes in earnings and dividend.

The second theory is confidence theory. The stock movements in confidences theory is even less formalized than the conventional theory.

The confidences theory of stock prices stated that the basic factor in the movement of stock prices is the rise and fall of trader and investor confidence in the future of stock prices, earnings, and dividends. Not like the conventional theory which said the stock prices depend on earnings, the confidence explain that stock prices tend on the basis of market psychology rather than on statistical fundamentals. The follower of the confidence theory believe that the market not respond to statistics and economics data with any high degree of

exactness. They believe that the market's indifferences to both good and bad news are often incredible. They aware that measurements of stock price levels such as price earnings ratios change constantly; sometimes they are very high sometimes very low but seldom unchanging. The follower this theory also stated that the market can do anything.

According to the confidence theory, if a sufficient numbers or traders and investors become optimistic about fundamental conditions or about prospects for an individual company they will buy stocks. If they become overoptimistic, they will buy stock until prices reach unwarranted levels, as measured by normal levels of prices, earnings, and dividends. On the opposite side, when they become pessimistic they will sell. If their pessimism becomes excessive, they will throw away the stock on the market until they fall to entirely unrealistic levels as measured by normal standard.

2.1.7. The Theory of Stock Volume

The old market axiom said that volume goes with the trend. Richard (1992), Volume is supposed to increase on rallies in bull market and to decline on reaction. In bear market volume should increase in reactions and shrink on rallies. Heavy volume at the end of a considerable movement in prices is believed to indicate the end of that trend and the turning point in prices.

The popular theory of volume may be stated (1) the market is technically strong when volume increases on rallies and declines on reactions; (2) the market is technically weak when volume increases on reactions and declines on rallies.

If volume increases as price advance, the theory is that demand is still greater than supply or in other word buying forces are stronger than selling forces. This is why traders like to see increasing volume on a rising market. On the other hand, in bull market, if volume drops off as prices declines, this is good sign. It is indicates that the supply is falling off at lower prices and owners are unwilling to sell.

In bear market, volume is supposed to increase as prices drop because supply is increasing and stockholders want to unload. This shows that the market is weak. If volume drops off on temporary rallies, the market is still weak because no larger amount of buying is entering the market.

2.2. Theoretical Framework

There are several literatures about cash flows, stock price and stock trading volume that the writer used in supporting this thesis whether from Indonesian or western research.

A number of previous studies (e.g. Rayburn 1986, Wilson 1987, Bernard and Stober 1989, Sloan 1996), focus on accrual and cash flow analysis. Rayburn's (1986) studied addresses the association of operating

cash flow and accruals with security returns. Rayburn used an association methodology to assess the ability of operating cash flow and accrual data to explain relative change in return over the year. Rayburn tested five hypotheses of the association. The first two hypotheses are the association between security returns and (1) operating cash flows after controlling for the association between aggregate accruals and security returns, (2) aggregate accruals after controlling for the association between operating cash flows and security returns. The other three hypotheses are the association between security returns and (1) current accruals, (2) depreciation, and (3) changes in deferred taxes, all after controlling for the association of operating cash flows and the other components of accruals with security returns. With used cross sectional regressions to test the hypotheses, the result of the study indicated that there is association of both operating cash flow and aggregate accruals with abnormal returns.

Wilson (1987) examined the incremental information content of the accrual and fund components of earning beyond earnings itself. The information content is measured by using regression and portfolio approaches with used two stage procedures. In the first stage, accounting forecast equation are estimated cross sectionals. In the second stage, the association between residuals from the first stage regression and market model prediction errors is determined. Estimated the coefficients in the accounting prediction equations are based on 462 firm year observations for 1981 until 1982. Test that required returns from financial statement release

date are based on the 379 firms' year observations which consist of 322 late releases and 57 early releases firm year observations. Result of the study indicate that incremental total accruals and cash from operation, taken together, have incremental information content beyond earnings and that is a positive association between this component information and stock returns. The information about the cash and non cash components of earnings is precisely same after controlling for earnings. One correlated variable in the annual report, the current year capital expenditure is partly controlled. And there could be other correlated variables beside there could be uncorrelated items in the annual report that have information content.

Bernard and Stober's (1989) study extended the study of Wilson (1987) in two ways. First Bernard and Stober assessed the generality and robustness of Wilson's result by conducting the same tests. Second, they examined progressively more contextual models of the implications of cash flows and accruals. Bernard and Stober argued that cash flows to accruals might arise under certain macro economics conditions. The macro economic condition in their study included the periods of economic downturn and the periods of economics improvement. The proxies used for the first condition are the low unexpected GNP growth and high unexpected short term interest rate (on 90 days Treasury bill), and vise versa. They also argued that the nature of cash flows and accruals data varies according to which specifics accrual accounts are unexpectedly high or low. The sample of the study is from 170 firms with period from 1977 until 1984. By applying OLS

estimation they estimated models for cash flows and working capital. And the result is failed to support hypothesis that the cash flows to accruals arise under certain macro economic conditions. Bernard and Stober also failed to find support for the hypothesis that the nature of information conveyed by cash flow and accruals data varies according to specific accruals accounts are unexpectedly high or low. Thus, the results indicated that the contextual factors do not successfully explain the behavior of stock prices around the release of cash flow and accrual data in the financial statements.

Ali (1994), in his study used a model that allows nonlinear relations between returns and three performance variables, they are earnings, working capital from operational [WCFO], and cash flows. This model is justified if the persistence of the unexpected component of each of the three variables declines with the absolute value of that component. The result of this studied is consistent with the proposed nonlinear relation between returns and unexpected earnings, unexpected WCFO and unexpected cash flow and with the existence of incremental information content of all three variables (earnings, working capital from operations and cash flows). These results are robust to portfolio based analyses and to outliner three treatments. He suggested that the power of test of incremental information content of some of the other non earnings data could be increased by allowing the security price responses to the unexpected components of the data to vary with the absolute value of the components.

Catherine (1994) in her paper examined the value relevance of earnings by testing their ability to predict two future benefits of equity, investment, earnings and cash flow from operation. She used annual data from 1935 until 1987 for 50 firms and she used time series methods to test firm specific predictive ability over the entire time period and then compare out of sample forecast errors to assess earnings ability to improve earnings or cash flow forecasts up to eight years ahead. She found that earnings are a significant predictor of future earnings. Test about the ability of earnings to predict future cash flows from operations showed that earnings used alone and together with cash flow are a significant predictor of future cash flow.

Sloan (1996) examined whether stock prices reflect information about future earnings contained in the accrual and cash flow components of current earnings. Sloan proposed four testable hypotheses. The first hypothesis is earnings performance attributable to the accrual component of earnings is less persistent than earnings performance attributable to the cash flow component of earnings. The second hypothesis is whether stock price reflect the different properties of the accruals and cash flow component of earnings. The third hypothesis is a trading strategy a long position in the stock of firms reporting relatively low levels of accruals and short position in the stock of firms reporting relatively high levels of accruals generated positive abnormal returns. The fourth is that the abnormal returns predicted in the third hypothesis are clustered around future earnings announcement dates. Sloan used sample of 40,679 firm year observations from the financial

statement data for 30 years, beginning in 1962 and ending in 1991. Firms included in the sample do not included banks, life insurance or property, and casualty companies because the financial data required computing operating accruals are not available for those firms. The result of the study indicated the lower persistence of earnings performance attribute to the accruals component of earnings than the cash flows component. Firms with relatively high levels of accruals experience negative future abnormal stock returns that are concentrated around earnings announcements, and firms with low levels of accruals experience positive future abnormal returns.

Beza and Na'im (1998) with their article title "The Information Content of Annual Earning Announcements a Trading Volume Approach" investigated 30 active companies in year 1995 which is listing in Jakarta stock exchange. They used audited financial statement for year 1994 as sample and the samples did not announcement the annual earning also others news. The result of their study was an increasing in stock volume significantly after annual earnings announcements. And they argued that the investors will change their belief to the company which announced annual earning.

Hastuti and Sudibyo (1998) in their article " Pengaruh Publikasi Laporan Arus Kas terhadap Volume Perdagangan Perusahaan di Bursa Efek Jakarta, took 37 companies which are listing on Jakarta stock exchange as the samples and the stock should be active traded, already go public before December 31st 1991 and made the cash flows statement on its financials

statement on December 1993. The observation period was 1991 until 1994. The result of their analysis, there was no market reaction in the form of the average change of stock trading volume in year 1991 and 1994 while financial statement publication for year 1993 and 1994 happened market reaction in the form of increased in stock trading volume. Their research gave empirical evidences that investors already used information which is contain in financial statement on December 1993 and 1994 for investing decision.

Lena Tan Chooi Yen (1999) surveyed whether the information provided from cash flow statement influence investors in making investing decision for year 1996 and 1997. The total sample were used in her study are 39 companies from manufacturing firms listed in the Jakarta stock exchange. The statistics method used to test four hypothesis is a linear multiple regression underlying the method of ordinary least square (OLS). She stated that first hypothesis is no effects between cash flow of operating with stock volume, second hypothesis is no effect between cash flow of investing with stock volume, third hypothesis is no effect between cash flow of financing with stock volume and the last hypothesis is no effect among cash flows from operating, investing and financing with stock volume. The results of her study indicates that the cash flow information divided into three different activities thus cash flow of operating, investing and financing react significantly shown by the Fisher test to share volume. In the other hand, the value of Adjusted R Square shown that the portion or the percentage of the

total variation of Y (share volume) explained by the regression model is low, which meant the investors bought the stock without really considering only the information contains in the financial statements but also other concern factors such as country risk, government policies and so on.

Bandi (2000) investigated the volume and price reaction associated with dividend announcements. The result of this study shows dependence between price and volume reaction. Price and trading volume is positively related. Although there is a relation between price and volume reaction around dividend announcements, the reactions are very relatively different in magnitudes. The relative magnitudes of price and volume reactions are extremely different for 32.88 percent of these sample dividend announcements, relatively similar reactions for 30.87 percent and the remaining 36.24 percent shows relatively intermediate reaction.

Triyono (2000) examined the association of information content of totals cash flows, components of cash flows, and accounting income with stock prices or stocks returns. He also compared the predictive power of between of totals cash flows and accounting income with their relation to stock price or stock return. He was taken 54 manufacturing firms listed in Jakarta stock exchange as a sample using a purposive sampling method. Data from audited financial statements were taken from Indo exchange files. The statistic method used to test hypotheses is a linear multiple regression. Two models were considered levels and return models. The empirical results indicated that disaggregation the total of cash flow into their components as

required by PSAK no.2 has significant associated with stock prices in the levels model. This means that the accounting authority has correctly mandated the publication statements of cash flows. In contras, the result of his study indicated that total cash flows, component of cash flows and accounting income are not associated with stock returns in the return model.

2.3. Hypotheses Formulation

The hypothesis formulation used in this research are,

Hypothesis 1a = no effects between cash flow from operating activities (CFOp) with stock price.

1b = no effects between cash flow from operating activities (CFOp) with stock volume.

Hypothesis 2a = no effects between cash flow from investing activities (CFIn) with stock price.

2b = no effects between cash flow from investing activities (CFIn) with stock volume.

Hypothesis 3a = no effects between cash flow from financing activities (CFFi) with stock price.

3b = no effects between cash flow from financing activities (CFFi) with stock volume.

Hypothesis 4a = no effects between CFOp, CFIn, and CFFi with stock price.

4b = no effects between CFOp, CFIn, and CFFi with stock volume.

CHAPTER III

RESEARCH METHOD

3.1. Research Method

This research applied quantitative data analysis to examine the relation between cash flow from operating activities, investing activities, and financing activities with stock prices or stock volume in Jakarta stock exchange. Quantitative analysis is a characteristic of variables when the value is stated in the numerical forms.

3.2. Research Subject

The companies included in LQ45 stocks that are listed in Jakarta stock exchange is the subject of this research. The companies which are included in LQ45 should be active traded in Jakarta stock exchange and their financial statements are already audited, with the observation period is since January 1998 until December 2003.

3.3. Research Instrument

The data is collected from the secondary data in the Jakarta stock exchange corner in Indonesian Islamic university, Yogyakarta. The secondary data means that the data have been previously collected for some project other than the one at hand (Zikmund, 1999). Data collection and the sources of data are described below:

1. The data for LQ45 stocks are gathered from Jakarta stock exchange corner on the 3rd floor in Indonesian Islamic university.
2. The stock price is collected from the Jakarta stock exchange corner on the 3rd floor in Indonesian Islamic university.
3. The shares trading volume is found out from the Jakarta stock exchange corner on the 3rd floor in Indonesian Islamic university.
4. The amount of cash flow from operating activities, cash flow from investing activities, and cash flow from financing activities are gathered from company's financial statement that provide at Jakarta stock exchange corner on the third floor in Indonesian Islamic university.

All of the data above are obtained in Jakarta stock exchange. Meanwhile, the data are gathered by downloading from the computer on the Jakarta stock exchange corner on the third floor in Indonesian Islamic university, Yogyakarta.

3.4. Research Variables

The independent variables in this research are:

1. Cash flow from operating (CFOp) for hypothesis 1a and 1b ,
2. Cash flow from investing (CFIn) for hypothesis 2a and 2b,
3. Cash flow from financing (CFFi) for hypothesis 3a and 3b,
4. And cash flow from operating (CFOp), cash flow from investing (CFIn) and cash flow from financing (CFFi) for hypothesis 4a and 4b.

The cash flows from operating, cash flows from investing, and cash flows financing are components of cash flows which are stated in PSAK no.2 about Cash Flow Statement.

The dependent variables in this research are:

1. Stock price (SP) for hypothesis 1a, 2a, 3a, and 4a.

   The stock price is closing price at observation period on the Jakarta stock exchange.

2. Stock trading volume (SV) for hypothesis 1b, 2b, 3b, and 4b.

   The stock volume is the total stock which is traded daily on the Jakarta stock exchange.

3.5. Research Procedures

It is important to set up research procedures in order to answer the research problems. The procedures were arranged as follows;

1. Doing the statistical test to find out whether there was a significant variation on the relationship among those variables.
2. Analyzing and interpreting the data.
3. Acquiring conclusions and any other findings.

3.6. Technique of Data Analysis

Zikmund (1999) in his book said that data is recorded measures of certain phenomena.

The data in this research must fulfill the following criteria:

1. The companies listed in Jakarta stock exchange before December 31st 1998 because the period in this research is the financial statement that is audited since year 1998 until 2003.

   The data obtained by downloading the Jakarta stock exchange corner in Indonesian Islamic university.

2. The LQ45 stocks as the data should be actively traded in Jakarta stock exchange. The observation period for active stocks is from 1998 until 2003.

   The data were also taken by downloading the Jakarta stock exchange corner in Indonesian Islamic university. After the data for LQ45 in Jakarta stock exchange since 1998 until 2003 is obtained, the writer did selection for those stocks in order can get the active LQ45. The active criterion in this case means that those stocks must be actively traded in all periods from 1998 until 2003 both in first section and second section, because one period consists of two sections. The first section is from February until July and the second section is from August until January.

   Meanwhile, the results will appear as follows:

Table 3.1 The Companies which is used in This Research

NO.	STOCK CODE	STOCK NAME	LISTING DATE
1	ASII	ASTRA INTERNATIONAL Tbk.	April 1990
2	BMTR	BIMANTARA CITRA	July 1995
3	GGRM	GUDANG GARAM	August 1990
4	HMSP	HM SAMPOERNA	August 1990
5	INDF	INDOFOOD SUKSES MAKMUR	July 1994
6	KLBF	KALBE FARMA	July 1991
7	MPPA	MATAHARI PUTRA PRIMA Tbk.	December 1992
8	TINS	TIMAH Tbk.	October 1995
9	RALS	RAMAYANA LESTARI SENTOSA Tbk.	July 1996
10	ISAT	INDOSAT	October 1994

3.6.1. Basic Model

This research used Bivariate Linear Regression for hypothesis 1a, 1b, 2a, 2b, 3a, and 3b means a measure of linear association that investigates a straight-line relation of type $Y = a + \beta X$, where Y is the dependent variable, X is independent variable, and a and b are two constants to be estimated. Meanwhile the hypothesis 4a and 4b are using Multiple Regression analysis in order to know the effects of cash flow components to stock price or stock volume. Multiple Regression analysis is an analysis of association that simultaneously investigates the effect of two or more independent variables on a single, interval-

scaled or ratio-scaled dependent variable (Zikmund, 1999). The Multiple regression model is written as:

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_{2i} + ... + \beta_k X_{ki} + \varepsilon_i$$

Where :

Y_i = dependent variable or endogenous variable

X's = independent (explanatory) variables or exogenous variables

β's = the unknown parameters

β_0 = the parameter on the constant

β_1 Through β_k = the partial regression coefficient

ε_i = random disturbance term ε is added to the regression model to capture unobservable and random effects that affect Y.

The β's measure the effect of a one unit change in X on the dependent variable Y, holding all variables constant. For example, β_1 measures the impact of one unit change in X_1 on Y, while holding X_2 through X_k constant. In other words, it gives the slope of equation with respect to X_1 holding X_2 through X_k constant.

The specifications from both of the models are written as follows:

The Simple Linear Regression model will be used to examine hypothesis 1a and 1b,

$$Y1_{it} = a + b_1 CFOp + e_{it}$$

$$Y2_{it} = a + b_1 CFOp + e_{it}$$

The model to examine hypothesis 2a and 2b,

$$Y1_{it} = a + b_2 CFIn + e_{it}$$

$$Y2_{it} = a + b_2 CFIn + e_{it}$$

The model to examine hypothesis 3a and 3b,

$$Y1_{it} = a + b_3 CFFi + e_{it}$$

$$Y2_{it} = a + b_3 CFFi + e_{it}$$

And the Multiple Regressions Model is used to examine hypothesis 4a and 4b,

$$Y1_{it} = a + b_1 CFOp + b_2 CFIn + b_3 CFFi + e_{it}$$

$$Y2_{it} = a + b_1 CFOp + b_2 CFIn + b_3 CFFi + e_{it}$$

Where,

$Y1_{it}$ = average of *i* stock price change to *t* period

$Y2_{it}$ = average of *i* stock trading volume change to *t* period

CFOp = average of *i* cash flow change from company operational activities to *t* period

CFIn = average of *i* cash flow change from company investing activities to *t* period

CFFi = average of *i* cash flow change from company financing activities to *t* period

a = intercept/constant coefficient

b_1, b_2, b_3 = variable coefficient

e_{it} = *i* disturbance variable of company to *t* period

3.6.2. Hypothesis Testing

The hypothesis testing can be stated based on the previous study and the hypothesis formulation is as follows:

H 1a : the cash flows from operating activities have no effects to stock price.

H 1b : the cash flows from operating activities have no effects to stock trading volume.

For second hypothesis:

H 2a : the cash flows from investing activities have no effects to stock price.

H 2b : the cash flows from investing activities have no effects to stock trading volume.

The third hypothesis:

H 3a : the cash flows from financing activities have no effects to stock price.

H 3b : the cash flows from financing activities have no effects to stock trading volume.

The fourth hypothesis:

H 4a = there is no effects between CFOp, CFIn, and CFFi with stock price.

H 4b = there is no effects between CFOp, CFIn, and CFFi with stock trading volume.

The writer will use *student-t* test in determining the independent variables that are most influential to stock price or stock trading volume. Meanwhile to examine the model accuracy the writer used Fisher test (F-test). In examining the closeness between dependent variable and independent variables can be obtained by finding R^2 value (coefficient of determination). If R^2 is closed to 1 so the closeness level from that model is higher. Moreover, the data is processed by using SPPS (Statistical Package for Social Science) computer software.

CHAPTER IV

RESEARCH FINDINGS, DISCUSSIONS AND IMPLICATIONS

4.1. Research Description

This chapter will explain about the data collection process, research findings, discussion, and implication of all the variables used in this research.

4.1.1. Data Collection Process

The data for cash flows from operating activities, investing activities and financing activities since 1998 until 2003 were collected by downloading from computer in Jakarta stock exchange corner at the third floor in Indonesian Islamic university.

The data for stock price are taken from daily closing price in Jakarta stock exchange from 1998 until 2003. It is gathered from Jakarta stock exchange corner in UII.

The data for stock trading volume are gotten from daily stock trading volume in Jakarta stock exchange since 1998 until 2003. And, the data also gathered from Jakarta stock exchange corner in UII.

The stock price and stock trading volume are taken daily but on the other side, the cash flow is collected annually, so it is important for the researcher to make the cumulative average for stock price and

stock trading volume before putting and examining it into model in order represent stock price and stock trading volume annually.

The companies listed in Jakarta stock exchange since 1998 until 2003 which include in LQ45 that were actively traded and its financial statement were already audited became are the data for this research. After selecting the company based on those criteria, this research used 10 companies. And then, the data was processed by using Microsoft Excel and SPPS release 11.0.

4.2. Research Findings

This section explains about the data processing result for each variable which is used in this research.

Table 4.1 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Average Price	60	199.078	16956.122	4491.3026	4493.72357
Average Volume	60	219881.25	26507243	6011852.7	6521200.8533
Operating	60	-1143731	4142721.0	898174.67	943560.95034
Investing	60	-4172128	1108727.0	-398788.3	829526.39393
Financing	60	-3478244	3552385.0	-3079.267	1258198.7460
Valid N (listwise)	60				

The descriptive statistics of this research are showed in the table above. The amount on stock price, stock trading volume, cash flows from operating activities, cash flows from investing activities, and cash flows from financing activities is totaled 60 and there is no data missing or in other word there is no mislink data. The mean for stock price amount is

4491.3026 with the standard deviation of 4493.72357. The mean for stock trading volume is 6011852.7 with standard deviation of 6521200.8533. For cash flow from operating activities, its mean is 898174.67 with standard deviation of 943560.95034. The mean for cash flows from investing activities is -398788.3 and its standard deviation is 829526.39393. The mean for cash flows from financing activities is -3079.267 with standard deviation of 1258198.7460. The standard deviations among five data are difference in each other. The standard deviation on stock price is relatively low; it is happen because the data spread is small, while the standard deviation for stock trading volume, cash flow from operating activities, cash flow from investing activities and cash flow from financing activities are relatively big, this is because its data spread is big too. The data spread can be known by seeing the minimum and maximum value from data above.

4.2.1. Cash Flow from Operating Activities to Stock Price

Table 4.2 The Summary of Regression Analysis for Model 1a

R Square		0.052				
Adjusted R square		4413.19176				
Std. Error of the Estimate		3.173				
F		0.080				
Sig.						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1a	(Constant)	3517.107	789.758		4.453	.000
	Operating	1.085E-03	.001	.228	1.781	.080

Model 1a explained the effect of cash flow from operating to stock price.

R square is 5.2%, which means that the effects of cash flow from operating activities to stock price in the amount of 5.2% and the change of stock price as 94.8% is affected by variables out of the cash flow of operating variable.

F test in 1a model, F value is 3.173, at the level of significance on α equal to 5%, and this model significant is 0.080 (bigger than 0.05) which means that all data do not show significant effects from cash flow of operating to stock price.

The equation for 1a model can be stated as follows y=3517.107 + 0.001085 x, where y is stock price and x is cash flows from operating activities. Positive sign on cash flow of operating coefficient 0.001085x have a meaning that between stock price and cash flow of operation has positive relationship for example if cash flow of operation is decreasing, it can make the stock price decreasing and if cash flow of operating activities is increasing so the stock price is increasing.

The result from t test which got t value is 1.781. Since 1a model significance is 0.080 (higher than 0.05) so hypothesis 1a is do not reject, which means that there is no effect from cash flow from operating activities to stock price. It was not consistent with the

researches made by Triono (2000) study also Benard and Stober (1989) and Livnat and Zarowin (1990).

4.2.2. Cash Flow from Operating Activities to Stock Trading Volume

Table 4.3 The Summary of Regression Analysis for Model 1b

R Square		.096				
Std. Error of the Estimate		6252568.430				
F		6.179				
Sig.		.772				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1b	(Constant)	4085798.9	1118921.4		3.652	.001
	Operating	2.144	.863	.310	2.486	.016

Model 1b explained the effect of cash flow from operating to stock trading volume.

R square is 9.6% which means that the effects of cash flow from operating activities to stock trading volume is in the amount of 9.6% and the change of stock trading volume as 90.4% is affected by variables out of the cash flow of operating variable.

F test in model 1b, F value is 6.179 at the level of significance (α) equal to 5%, and this model significant α is 0.016, (lower than 0.05) which means that all data show significant effects from cash flow of operating to stock trading volume. The equation for model 1b can be stated as follows y=4085798.9+2.144x, where y is stock trading volume, and x is cash flows from operating activities. Positive sign on cash flow of operating coefficient 2.144x has a meaning that between

stock trading volume and cash flow of operating has positive relationship for example if cash flow of operating activities are higher so the stock trading volume is getting higher and if cash flow of operating is decreasing, this can make the stock trading volume decreasing.

The result from t test which got t value is 2.486. Since of 1b model significance is 0.016 (lower than 0.05) so we can state that the hypothesis 1b reject which means that there is an effect from cash flow from operating activities to stock trading volume.

Moreover, it was consistent with the research made by Lena Tan Chooi Yen (1999) which said that cash flows from operating have an effect to stock trading volume.

4.2.3. Cash Flow from Investing Activities to Stock Price

Table 4.4 The Summary of Regression Analysis for Model 2a

R Square			0.087			
Std. Error of the Estimate			4330.55012			
F			5.530			
Sig.			.022			
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
2a	(Constant)	3853.935	621.307		6.203	.000
	Investing	-0.001598	.001	-.295	-2.352	.022

Model 2a showed the effect of cash flows from investing activities to stock price.

R square is 8.7%, which means that the effects of cash flow from investing activities to stock price is in the amount of 8.7% and the change of stock price of 91.3% is affected by variables out of the cash flow of investing variable.

F test in model 2a, F value is 5.530, at the level of significance (α) equal to 5%, and this model significant α is 0.022, (lower than 0.05) which means that all data show significant effects from cash flow of investing to stock price.

The equation for model 2a can be stated as follows y=3853.935-0.001598x, where y is stock price, and x is cash flows from investing activities. Negative sign on cash flow of operating coefficient -0.001598x has a meaning that between stock price and cash flow of investing has negative relationship. For example, if cash flow of investing activities is higher so the stock price is getting lower, and if cash flow of investing is decreasing it can make the stock price increasing.

The result from t test which got t value is 2.352. Since model 2a's significance is 0.022 (lower than 0.05) so, we can state that hypothesis 2a reject, which means that there is an effect from cash flow from investing activities to stock price.

It is not consistent with Benard and Stober (1989) and Livnat and Zarowin's (1990) study that found out that there is no significant effect between cash flows from investing to stock price.

4.2.4. Cash Flow from Investing Activities to Stock Trading Volume

Table 4.5 The Summary of Regression Analysis for Model 2b

R Square			.033			
Std. Error of the Estimate			6468805.261			
F			1.960			
Sig.			.167			
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
2b	(Constant)	6578611.6	928083.9		7.088	.000
	Investing	1.421	1.015	.181	1.400	.167

Model 2b explained the effect cash flow from investing activities to stock trading volume.

The value of R square is 0.033 or 3.3% which showed that the stock trading volume can be explained by cash flow from investing activities only as 0.033. On the other hand, the 0.967 or 96.7% is explained by other variables.

F value was 1.960 and its significance was 0.167 which means that there was not significant cash flow of investing effects to stock trading volume because the amount is 0.167 bigger than 0.05 with level of significance (α) equal to 0.05.

The equation for 2b model can be stated as follows y=6578611.6+1.421x, where y is stock trading volume, and x is cash flows from investing activities. From that equation it is showed that there was a positive sign on cash flow of investing coefficient 1.421x. It means that between stock trading volume and cash flow of financing has positive relationship for example if cash flow of investing

activities is higher so the stock trading volume is also getting higher and if cash flow of investing is decreasing it can make the stock trading volume to decrease too.

The t value on 2b model was 1.400 and the significance value is 0.167. Since the significance value is bigger than 0.05 with (α) equal to 0.05, it can be stated that hypothesis 2b do not reject in other word, there is no effect from cash flow from investing to stock trading volume. It is in line with Lena Tan Chooi Yen's study (1999) which said on her second hypothesis that cash flow from investing has no effect to stock trading volume.

4.2.5. Cash Flow from Financing Activities to Stock Price

Table 4.6 The Summary of Regression Analysis for Model 3a

R Square			.002			
Std. Error of the Estimate			4527.09172			
F			.133			
Sig.			.716			
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
3a	(Constant)	4490.776	584.447		7.684	.000
	Financing	-0.0001711	.000	-.048	-.365	.716

3a model table explained the effect cash flows from financing to stock price. The value of R square is 0.002 or 0.2% which means that the stock price can be explained by cash flow from financing

activities only as 0.002; on the other hand, the 0.998 or 99.8% is explained by other variables.

F value was 0.133 and its significance was 0.716. It means that there was not significant effects between cash flow of financing activities to stock price because the value of significance is 0.716 (bigger than 0.05) with significance level (α) equal to 0.05 or 5%.

The equation for 3a model can be stated as follows y=4490.776-0.0001711x, where y is stock price, and x is cash flows from financing activities. From that equation it is showed that there is negative sign on cash flow of financing coefficient -0.0001711x which means that between cash flow of financing and stock price has negative relationship for example if cash flow of financing activities is higher so the stock price is getting lower and if cash flow of financing is decreasing it can make the stock price increasing.

The t value is –0.365, where the level of significance is in the amount of 0.716 (bigger than 0.05) with α equal to 0.05. It can be concluded that hypothesis 3a is do not reject, in other word, there is no effect from cash flow from financing to stock price. It was not in line with the results of researches proposed by Triono (2000) study and also Benard and Stober (1989) and Livnat and Zarowin (1990).

4.2.6. Cash Flow from Financing Activities to Stock Trading Volume

Table 4.7 The Summary of Regression Analysis for Model 3b

R Square		.032				
Std. Error of the Estimate		6470718.995				
F		1.924				
Sig.		.171				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
3b	(Constant)	6014712.6	835368.77		7.200	.000
	Financing	.929	.670	.179	1.387	.171

Model 3b table explained the effect cash flow from financing activities to stock trading volume.

The value of R square is 0.032 or 3.2% which showed that the stock trading volume can be explained by cash flow from financing activities which is only as 0.032, on the other hand, the 0.968 or 96.8% is explained by other variables.

F value was 1.924 and its significance was 0.171 which means that there was not significant cash flow of financing effect to stock trading volume because of 0.171 which is bigger than 0.05 with α which is equal to 0.05.

The equation for 3b model can be stated as follows y=6014712.6+0.929x, where y is stock trading volume, and x is cash flows from financing activities. Like 2b model, the equation on 3b showed positive sign on cash flow of financing coefficient, 0.929x. It means that there was a positive relationship between cash flow of financing and stock trading volume for example if cash flow of

financing activities is higher so the stock trading volume is also getting higher and if cash flow of financing is decreasing it can make the stock trading volume is decreasing too.

The t value of 1.387 and the significance value is 0.171, which means that the significance value is bigger than 0.05, with significance level α equal to 0.05. It can be stated that hypothesis 3b do not reject, in other word, there is no effect from cash flows from financing to stock volume. It is in line with the hypothesis made by Lena Tan Chooi Yen (1999) which said that cash flows from financing have no effect to stock volume.

4.2.7. Cash Flows from Operating, Investing and Financing Activities to Stock Price

Table 4.8 the summary of regression analysis for model 4a

R Square	.138
Adjusted R Square	.092
Std. Error of the Estimate	4281.46269
F	2.998
Sig.	.038

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
4a	(Constant)	3029.618	794.685		3.812	.000
	Operating	0.0008928	.001	.187	1.497	.140
	Investing	-0.001651	.001	-.305	-2.351	.022
	Financing	-0.0004304	.000	-.121	-.935	.354

Model 4a explained about the effects of cash flows from operating, investing, and financing activities to stock price.

The amount of R which is used in this model is not R square but adjusted R square because the independent variable used is not only one anymore but three or there is an additional independent variable from one to three. The reason behind addition of those variables is because the amount of R which is used is adjusted R square in order to get a clearer explanation this model. The value of adjusted R square in 4a model is 0.092 which means that stock price can be explained by cash flow of operating, cash flow of investing, and cash flow of financing as 0.092, while 0.908 is explained by other variables.

Its F value of 2.998 and its significance is 0.038 which means that it is significant, in other word, there is an effects among cash flow of operating, cash flow of investing, and cash flow of financing to stock price because its significance of 0.038 is lower than 0.05 with the level of significance α equal to 0.05.

The equation for 4a model is y=3029.618+0.0008928a-0.001651b-0.0004304c, where y is stock price, a is cash flow of operating, b is cash flow of investing, and c is cash flow of financing. From this equation it means that cash flow from investing and financing activities as independent variables have negative relationship to stock price for example if cash flow of investing activities and cash flow of financing activities are higher, so the stock price is getting lower and if all components of cash flow are decreasing, it can make the stock price increasing. And positive sign on cash flow of operating have a

meaning that between stock price and cash flow of operation has positive relationship for example if cash flow of operation is decreasing, it can make the stock price decreasing and if cash flow of operating activities is increasing so the stock price is increasing.

From t value and significance value on 4a model table it means that the entire variables are not significant, so it can be stated that hypothesis 4a do not reject which means that as a whole cash flow from operating activities, cash flow from investing, and cash flow from financing have no effect to stock price. It is in accordance with a research done by Triono (2000) that stated total cash flow do not have effect to stock price.

4.2.8. Cash Flows from Operating, Investing and Financing Activities to Stock Trading Volume

Table 4.9 The Summary of Regression Analysis for Model 4b

R Square	.212
Adjusted R Square	.169
Std. Error of the Estimate	5943516.625
F	5.009
Sig.	.004

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
4b	(Constant)	47630665.0	1103180.4		4.288	.000
	Operating	2.454	.828	.355	2.964	.004
	Investing	2.304	.975	.293	2.369	.022
	Financing	1.400	.639	.270	2.191	.033

Model 4b explained about the effects of cash flows from operating, investing, and financing activities to stock trading volume. The amount of R which is used in this model is not R square but adjusted R square and the reason was the same with model 4a.

The value of adjusted R square in 4b model is 0.169, which means that stock trading volume can be explained by cash flow of operating, cash flow of investing, and cash flow of financing as 0.169 while 0.831 is explained by other variables.

Its F value is 5.009 and its significance is 0.004, which means that it is significant, in other word, there are effects among cash flow of operating, cash flow of investing, and cash flow of financing to stock trading volume because its significance which is at 0.004 is lower than 0.05 with the significance level α equal to 0.05.

The equation for 4b model is y=4730665.0+2.454a +2.304b + 1.400c, where y is stock trading volume, a is cash flow of operating, b is cash flow of investing, and c is cash flow of financing. From this equation it means that cash flow from operating activities, cash flow of investing activities, and cash flow of financing activities have positive relationship which that the means higher the amount of operating, investing and financing cash flows, the higher the stock trading volume will be. And, if operating, investing and financing of cash flow are decreasing, it can make the stock trading volume also decreasing.

From t value and significance value on 4b model table it means that those entire variables are significant, so it can be stated that 4b hypothesis reject, which means that as a whole the cash flow from operating activities, cash flow from investing, and cash flow from financing has an effect to stock trading volume.

Based on all of the analyzes result, this research proved that almost the hypotheses in this research are not significant, and it can be caused by the small amount of R square or adjusted R square value. It means that the dominant factors out of cash flows information have influenced the stock price and stock trading volume on most of the companies listed in Jakarta stock exchange included in LQ45 for the year 1998 until 2003. The examples of those factors are the current political condition, government policies, country risk, etc. The independent variable that most influential to stock price is cash flow from investment activities with its significant 2.2%. Cash flow from operating activities (its significant 1.6%) and total of cash flows (its significant lower than 5%) are independent variables which the most influence the stock trading volume.

4.3. Research Implications

This section will discuss about the implication of this research on the theory used as a basis of this research.

As a whole, the analysis result can state that the local or foreign investors in Indonesia rarely use cash flows information in their investing

decision taking, which are reflected on stock prices and stock trading volume in monetary crisis condition (the year of this research observation is 1998 until 2003). The factors which really influence the stock trading volume are the character and the purpose of the investors, whether they those investors want to speculate or invest. Actually, the investors who just want speculate has ignored the information in the financial statement, because they prefer to make rumors about social and politic conditions in our country, investing trend and country economic stability in their investing decision. The other way around happens to them who have the investing purpose and those who are considered as the most important information which was announced by the companies, which are listed in Jakarta stock exchange (Lena Tan Chooi yen, 1999).

CHAPTER V

CONCLUSION AND RECOMMENDATION

5.1. Research Conclusion

Based on the research objective, statistical testing and analysis which have been described in the early chapters, the researcher draws the following conclusions:

1. There are no significant effects between cash flow informations which consist of cash flows from operating activities, cash flows from financing activities and total component of cash flows to stock price. Except for cash flows from investing activities.
2. There are no significant effects between cash flows information which consist of cash flows from investing activities, cash flows from financing activities to stock trading volume. Except for cash flows from operating activities and total component of cash flows.

5.2. Research Recommendations

Based on the above conclusions, the researcher would like to propose the following recommendations:

1. This research took small data so it is better for the next research to use data from all sectors in Jakarta stock exchange because if we take data from all sectors in JSX, the results can be utilized as the bases in drawing the conclusion.

2. It is more appropriate for the next researcher to use different research methodology, other than linear regression.
3. It is better for the companies to announce the balance sheet or income statement not only in the newspaper but also at the cash flows statement to give a signal to the market in order that the users of financial statements can get its actual and relevant information easily.
4. Although this research analysis showed the insignificant effect among cash flows information to stock price or stock trading volume, however, the researcher believes that cash flows information is still an interesting object to be researched as a consideration in buying or selling the stocks.

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APPENDICES

	year	company	price	volume	operat	invest	financ
1	1998.000	ASII	865.164	11336748	618779.0	46923.00	3465404
2	1999.000	ASII	3313.469	16276478	2109788	885660.0	3300550
3	2000.000	ASII	2285.694	12379384	2124711	-170992	3215172
4	2001.000	ASII	2237.245	26507243	3231764	512830.0	3552385
5	2002.000	ASII	3023.988	14271694	4142721	-140782	-2575609
6	2003.000	ASII	4541.736	11113928	2218911	1108727	-3478244
7	1998.000	BMTR	335.041	3064238	339551.0	-624895	374694.0
8	1999.000	BMTR	1288.265	6837807	362985.0	-64057.0	-222224
9	2000.000	BMTR	1078.490	4840253	224342.0	274814.0	-503648
10	2001.000	BMTR	1519.184	2108553	110216.0	250965.0	-197411
11	2002.000	BMTR	2586.741	291745.5	109335.0	-520982	-28590.0
12	2003.000	BMTR	3373.467	219881.3	206692.0	-1197542	1016780
13	1998.000	GGRM	9488.012	1058054	1320853	-180027	-635186
14	1999.000	GGRM	16956.12	1126354	1436364	-88579.0	-792645
15	2000.000	GGRM	12608.22	1473384	-1143731	-237847	486743.0
16	2001.000	GGRM	10993.06	2724649	551144.0	-820790	298093.0
17	2002.000	GGRM	8587.247	1521806	2215856	-1364099	-611217
18	2003.000	GGRM	12189.27	1453458	2112529	-2151435	-10270.0
19	1998.000	HMSP	4459.119	4803440	632373.0	-201680	-402173
20	1999.000	HMSP	15666.02	1322778	647306.0	-202503	-391319
21	2000.000	HMSP	12995.02	1158906	619441.0	-296791	203994.0
22	2001.000	HMSP	8597.385	4654230	496104.0	260554.0	-186383
23	2002.000	HMSP	3534.615	6600656	1826574	-240669	-1361269
24	2003.000	HMSP	4430.077	6078473	2024678	-517978	-735291
25	1998.000	INDF	3165.164	9533778	1411742	-221837	-523024
26	1999.000	INDF	7819.490	4002463	2085851	-153934	-1714778
27	2000.000	INDF	2403.163	14125569	1634873	-568195	-1414513
28	2001.000	INDF	773.469	24711506	1194561	-574972	-1213241
29	2002.000	INDF	778.644	23605536	-251784	-817731	1603575
30	2003.000	INDF	780.556	19296102	1557250	-559166	-836832
31	1998.000	KLBF	428.484	1249573	693971.0	-5793.00	-72131.0
32	1999.000	KLBF	1637.857	5156195	188730.0	-343210	-271088
33	2000.000	KLBF	489.143	3899880	98172.00	253541.0	-607032
34	2001.000	KLBF	278.184	9489580	168947.0	-58976.0	-89380.0
35	2002.000	KLBF	321.700	7606668	399128.0	-99349.0	-105027
36	2003.000	KLBF	604.694	9662929	507168.0	-397249	-9755.00
37	1998.000	MPPA	199.078	5878218	205066.0	-168869	-503161
38	1999.000	MPPA	892.959	17822765	306919.0	-177428	-139486
39	2000.000	MPPA	591.878	11449322	563745.0	-397726	-43876.0
40	2001.000	MPPA	531.653	12362478	347862.0	-359254	-428557
41	2002.000	MPPA	526.498	5684836	492711.0	-516315	334533.0
42	2003.000	MPPA	553.851	3352163	389063.0	-568791	-30839.0
43	1998.000	TINS	6058.914	616971.1	547812.0	-194714	-122351
44	1999.000	TINS	5191.225	825803.3	460800.0	-286278	-213381
45	2000.000	TINS	1954.347	1128257	123329.0	-254000	138610.0
46	2001.000	TINS	1041.444	3012616	195275.0	-173321	-126139
47	2002.000	TINS	490.891	741485.3	-587.000	-68213.0	53995.00
48	2003.000	TINS	1559.866	3537308	207811.0	-66235.0	-103328

	year	company	price	volume	operat	invest	financ
49	1998.000	RALS	1633.709	1214258	181381.0	-18037.0	-85597.0
50	1999.000	RALS	4807.551	505387.8	426548.0	-82012.0	-77120.0
51	2000.000	RALS	4413.571	751506.1	564920.0	-80741.0	-150241
52	2001.000	RALS	2817.959	1901002	403393.0	-313072	-225124
53	2002.000	RALS	2932.085	2026482	413341.0	-153625	-331103
54	2003.000	RALS	3794.923	1061605	528167.0	-753741	-173956
55	1998.000	ISAT	11982.55	725549.4	1631876	-400709	-331919
56	1999.000	ISAT	12916.12	1112004	1241520	-425262	-444309
57	2000.000	ISAT	9929.388	1600510	1439126	-251177	-681635
58	2001.000	ISAT	9067.347	2043094	1553685	-923988	402332.0
59	2002.000	ISAT	9890.000	3258775	344484.0	-4172128	2091758
60	2003.000	ISAT	9267.143	2534849	3094338	-3893618	2477028

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Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Average Price	60	199.078	16956.122	4491.3026	4493.72357
Average Volume	60	219881.25	26507243	6011852.7	6521200.8533
Average Operating	60	-1143731	4142721.0	898174.67	943560.95034
Average Investing	60	-4172128	1108727.0	-398788.3	829526.39393
Average Financing	60	-3478244	3552385.0	-3079.267	1258198.7460
Valid N (listwise)	60				

Regression - Cash Flow from Operating Activities (CFOp) to Stock Price

Descriptive Statistics

	Mean	Std. Deviation	N
Average Price	4491.3026	4493.72357	60
Average Operating	898174.67	943560.95034	60

Correlations

		Average Price	Average Operating
Pearson Correlation	Average Price	1.000	.228
	Average Operating	.228	1.000
Sig. (1-tailed)	Average Price	.	.040
	Average Operating	.040	.
N	Average Price	60	60
	Average Operating	60	60

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Average Operating[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Average Price

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.228[a]	.052	.036	4413.19176	.052	3.173	1	58	.080	.497

a. Predictors: (Constant), Average Operating

b. Dependent Variable: Average Price

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61796370	1	61796369.999	3.173	.080[a]
	Residual	1.13E+09	58	19476261.512		
	Total	1.19E+09	59			

a. Predictors: (Constant), Average Operating

b. Dependent Variable: Average Price

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	3517.107	789.758		4.453	.000					
	Average Operating	1.085E-03	.001	.228	1.781	.080	.228	.228	.228	1.000	1.000

a. Dependent Variable: Average Price

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	Average Operating
1	1	1.693	1.000	.15	.15
	2	.307	2.346	.85	.85

a. Dependent Variable: Average Price

Residuals Statistics[a]

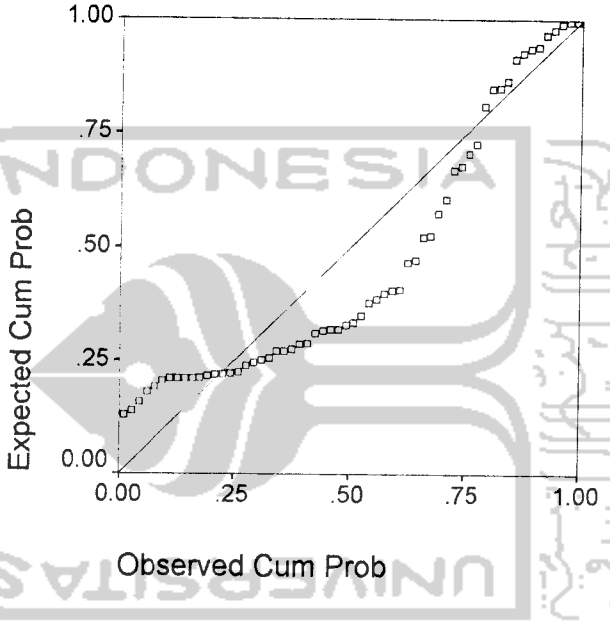
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2276.5706	8010.4668	4491.3026	1023.42372	60
Residual	-4986.479	11881.078	-1.23E-12	4375.63200	60
Std. Predicted Value	-2.164	3.439	.000	1.000	60
Std. Residual	-1.130	2.692	.000	.991	60

a. Dependent Variable: Average Price

Charts

Normal P-P Plot of Regression Sta

Dependent Variable: Average Price



Regression - Cash Flow from Operating Activities (CFOp) to Stock Trading Volume

Descriptive Statistics

	Mean	Std. Deviation	N
Average Volume	6011852.7	6521200.8533	60
Average Operating	898174.67	943560.95034	60

Correlations

		Average Volume	Average Operating
Pearson Correlation	Average Volume	1.000	.310
	Average Operating	.310	1.000
Sig. (1-tailed)	Average Volume	.	.008
	Average Operating	.008	.
N	Average Volume	60	60
	Average Operating	60	60

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Average Operating[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Average Volume

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.310[a]	.096	.081	6252568.430	.096	6.179	1	58	.016	.712

a. Predictors: (Constant), Average Operating

b. Dependent Variable: Average Volume

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.42E+14	1	2.4155E+14	6.179	.016[a]
	Residual	2.27E+15	58	3.9095E+13		
	Total	2.51E+15	59			

a. Predictors: (Constant), Average Operating

b. Dependent Variable: Average Volume

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	4085798.9	1118921.4		3.652	.001					
	Average Operating	2.144	.863	.310	2.486	.016	.310	.310	.310	1.000	1.000

a. Dependent Variable: Average Volume

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	Average Operating
1	1	1.693	1.000	.15	.15
	2	.307	2.346	.85	.85

a. Dependent Variable: Average Volume

Casewise Diagnostics[a]

Case Number	Std. Residual	Average Volume	Predicted Value	Residual
29	3.208	23605536	3545871.0	20059665

a. Dependent Variable: Average Volume

Residuals Statistics[a]

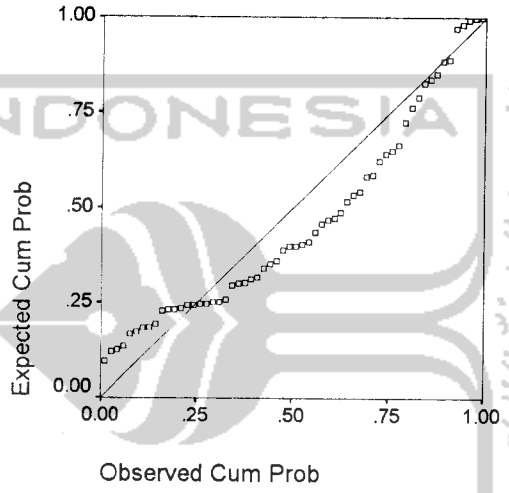
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1633171.8	12969487	6011852.7	2023380.6216	60
Residual	-8186476	20059666	-8.54E-10	6199354.1138	60
Std. Predicted Value	-2.164	3.439	.000	1.000	60
Std. Residual	-1.309	3.208	.000	.991	60

a. Dependent Variable: Average Volume

Charts

Normal P-P Plot of Regression Sta

Dependent Variable: Average Volu



Regression - Cash Flow from Investing Activities (CFIn) to Stock Price

Descriptive Statistics

	Mean	Std. Deviation	N
Average Price	4491.3026	4493.72357	60
Average Investing	-398788.3	829526.39393	60

Correlations

		Average Price	Average Investing
Pearson Correlation	Average Price	1.000	-.295
	Average Investing	-.295	1.000
Sig. (1-tailed)	Average Price	.	.011
	Average Investing	.011	.
N	Average Price	60	60
	Average Investing	60	60

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Average Investing[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Average Price

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.295[a]	.087	.071	4330.55012	.087	5.530	1	58	.022	.633

a. Predictors: (Constant), Average Investing

b. Dependent Variable: Average Price

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.04E+08	1	103707007.5	5.530	.022[a]
	Residual	1.09E+09	58	18753664.314		
	Total	1.19E+09	59			

a. Predictors: (Constant), Average Investing

b. Dependent Variable: Average Price

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	3853.935	621.307		6.203	.000					
	Average Investing	-1.598E-03	.001	-.295	-2.352	.022	-.295	-.295	-.295	1.000	1.000

a. Dependent Variable: Average Price

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	Average Investing
1	1	1.436	1.000	.28	.28
	2	.564	1.596	.72	.72

a. Dependent Variable: Average Price

Residuals Statistics[a]

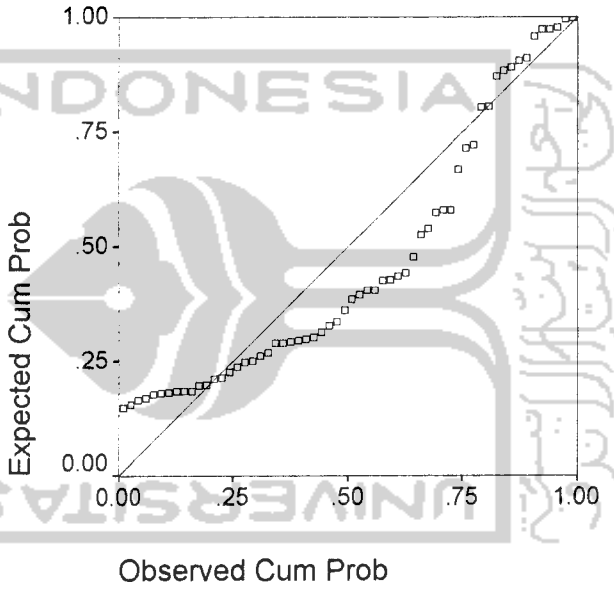
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2081.8989	10522.086	4491.3026	1325.80009	60
Residual	-4517.639	12960.615	-1.06E-12	4293.69370	60
Std. Predicted Value	-1.817	4.549	.000	1.000	60
Std. Residual	-1.043	2.993	.000	.991	60

a. Dependent Variable: Average Price

Charts

Normal P-P Plot of Regression Sta

Dependent Variable: Average Price



Regression -Cash Flow from Investing Activities (CFIn) to Stock Trading Volume

Descriptive Statistics

	Mean	Std. Deviation	N
Average Volume	6011852.7	6521200.8533	60
Average Investing	-398788.3	829526.39393	60

Correlations

		Average Volume	Average Investing
Pearson Correlation	Average Volume	1.000	.181
	Average Investing	.181	1.000
Sig. (1-tailed)	Average Volume	.	.083
	Average Investing	.083	.
N	Average Volume	60	60
	Average Investing	60	60

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Average Investing[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Average Volume

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.181[a]	.033	.016	6468805.261	.033	1.960	1	58	.167	.604

a. Predictors: (Constant), Average Investing

b. Dependent Variable: Average Volume

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.20E+13	1	8.2002E+13	1.960	.167[a]
	Residual	2.43E+15	58	4.1845E+13		
	Total	2.51E+15	59			

a. Predictors: (Constant), Average Investing

b. Dependent Variable: Average Volume

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	6578611.6	928083.9		7.088	.000					
	Average Investing	1.421	1.015	.181	1.400	.167	.181	.181	.181	1.000	1.00

a. Dependent Variable: Average Volume

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	Average Investing
1	1	1.436	1.000	.28	.28
	2	.564	1.596	.72	.72

a. Dependent Variable: Average Volume

Residuals Statistics[a]

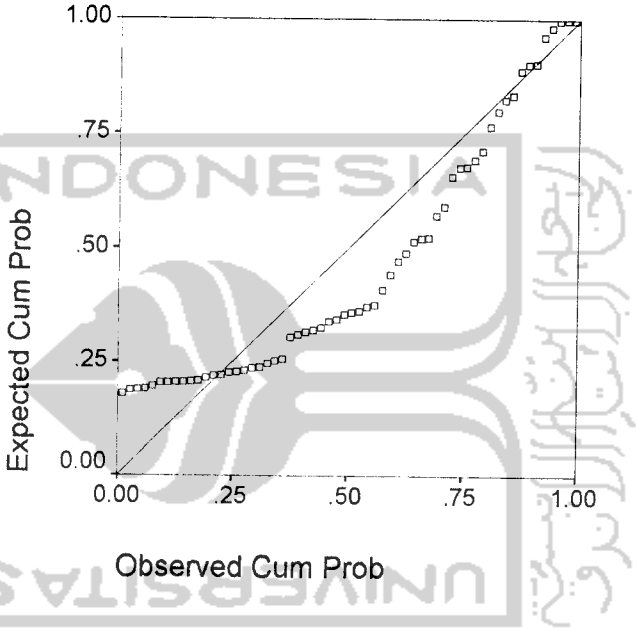
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	649173.50	8154337.0	6011852.7	1178924.8653	60
Residual	-5956668	19199796	-1.79E-09	6413750.5978	60
Std. Predicted Value	-4.549	1.817	.000	1.000	60
Std. Residual	-.921	2.968	.000	.991	60

a. Dependent Variable: Average Volume

Charts

Normal P-P Plot of Regression Sta

Dependent Variable: Average Volu



Regression - Cash Flow ffrom Financing Activities (CFFi) to Stock Price

Descriptive Statistics

	Mean	Std. Deviation	N
Average Price	4491.3026	4493.72357	60
Average Financing	-3079.267	1258198.7460	60

Correlations

		Average Price	Average Financing
Pearson Correlation	Average Price	1.000	-.048
	Average Financing	-.048	1.000
Sig. (1-tailed)	Average Price	.	.358
	Average Financing	.358	.
N	Average Price	60	60
	Average Financing	60	60

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Average Financing[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Average Price

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.048[a]	.002	-.015	4527.09172	.002	.133	1	58	.716	.495

a. Predictors: (Constant), Average Financing

b. Dependent Variable: Average Price

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2735089.6	1	2735089.562	.133	.716[a]
	Residual	1.19E+09	58	20494559.450		
	Total	1.19E+09	59			

a. Predictors: (Constant), Average Financing

b. Dependent Variable: Average Price

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	4490.776	584.447		7.684	.000					
	Average Financing	-1.711E-04	.000	-.048	-.365	.716	-.048	-.048	-.048	1.000	1.00

a. Dependent Variable: Average Price

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	Average Financing
1	1	1.002	1.000	.50	.50
	2	.998	1.002	.50	.50

a. Dependent Variable: Average Price

Residuals Statistics[a]

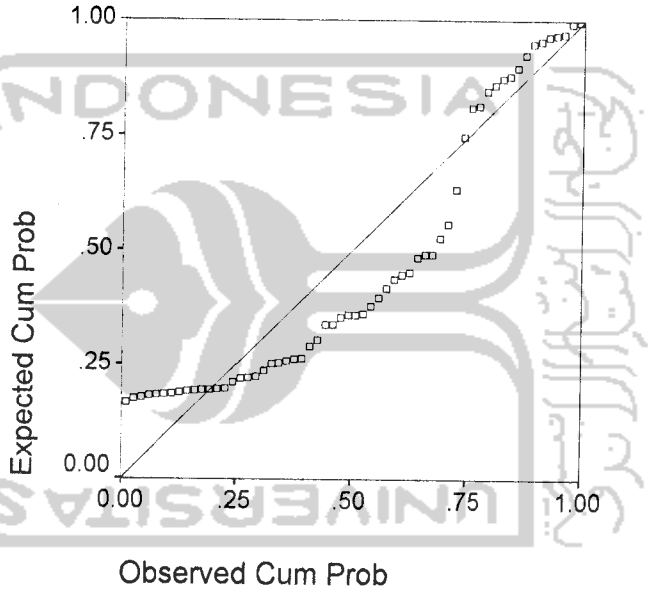
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3882.8779	5085.9863	4491.3026	215.30780	60
Residual	-4377.801	12329.706	-8.03E-13	4488.56258	60
Std. Predicted Value	-2.826	2.762	.000	1.000	60
Std. Residual	-.967	2.724	.000	.991	60

a. Dependent Variable: Average Price

Charts

Normal P-P Plot of Regression Sta

Dependent Variable: Average Price



Regression-Cash Flow from Financing (CFFi) to Stock Trading Volume

Descriptive Statistics

	Mean	Std. Deviation	N
Average Volume	6011852.7	6521200.8533	60
Average Financing	-3079.267	1258198.7460	60

Correlations

		Average Volume	Average Financing
Pearson Correlation	Average Volume	1.000	.179
	Average Financing	.179	1.000
Sig. (1-tailed)	Average Volume	.	.085
	Average Financing	.085	.
N	Average Volume	60	60
	Average Financing	60	60

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Average Financing[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Average Volume

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.179[a]	.032	.015	6470718.995	.032	1.924	1	58	.171	.598

a. Predictors: (Constant), Average Financing

b. Dependent Variable: Average Volume

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.06E+13	1	8.0566E+13	1.924	.171[a]
	Residual	2.43E+15	58	4.1870E+13		
	Total	2.51E+15	59			

a. Predictors: (Constant), Average Financing

b. Dependent Variable: Average Volume

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	6014712.6	835368.77		7.200	.000					
	Average Financing	.929	.670	.179	1.387	.171	.179	.179	.179	1.000	1.000

a. Dependent Variable: Average Volume

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	Average Financing
1	1	1.002	1.000	.50	.50
	2	.998	1.002	.50	.50

a. Dependent Variable: Average Volume

Casewise Diagnostics[a]

Case Number	Std. Residual	Average Volume	Predicted Value	Residual
28	3.064	24711506	4887912.2	19823594

a. Dependent Variable: Average Volume

Residuals Statistics[a]

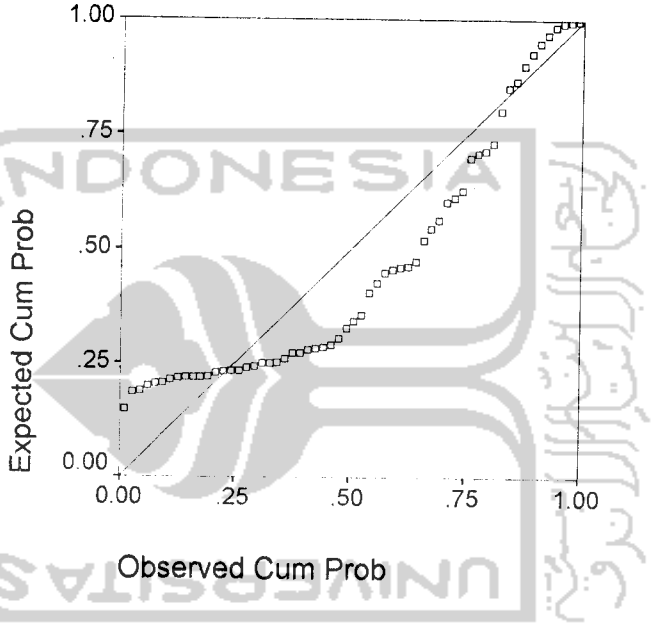
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2784285.5	9313998.0	6011852.7	1168554.9799	60
Residual	-6739168	19823594	-1.88E-09	6415648.0442	60
Std. Predicted Value	-2.762	2.826	.000	1.000	60
Std. Residual	-1.041	3.064	.000	.991	60

a. Dependent Variable: Average Volume

Charts

Normal P-P Plot of Regression Sta

Dependent Variable: Average Volu



Regression - CFOp, CFIn, and CFFi to Stock Price

Descriptive Statistics

	Mean	Std. Deviation	N
Average Price	4491.3026	4493.72357	60
Average Operating	898174.67	943560.95034	60
Average Investing	-398788.3	829526.39393	60
Average Financing	-3079.267	1258198.7460	60

Correlations

		Average Price	Average Operating	Average Investing	Average Financing
Pearson Correlation	Average Price	1.000	.228	-.295	-.048
	Average Operating	.228	1.000	-.117	-.039
	Average Investing	-.295	-.117	1.000	-.262
	Average Financing	-.048	-.039	-.262	1.000
Sig. (1-tailed)	Average Price	.	.040	.011	.358
	Average Operating	.040	.	.188	.382
	Average Investing	.011	.188	.	.021
	Average Financing	.358	.382	.021	.
N	Average Price	60	60	60	60
	Average Operating	60	60	60	60
	Average Investing	60	60	60	60
	Average Financing	60	60	60	60

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Average Financing, Average Operating, Average Investing[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Average Price

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.372[a]	.138	.092	4281.46269	.138	2.998	3	56	.038	.617

a. Predictors: (Constant), Average Financing, Average Operating, Average Investing

b. Dependent Variable: Average Price

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.65E+08	3	54962621.399	2.998	.038[a]
	Residual	1.03E+09	56	18330922.741		
	Total	1.19E+09	59			

a. Predictors: (Constant), Average Financing, Average Operating, Average Investing

b. Dependent Variable: Average Price

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	3029.618	794.685		3.812	.000					
	Average Operating	8.928E-04	.001	.187	1.497	.140	.228	.196	.186	.981	1.019
	Average Investing	-1.651E-03	.001	-.305	-2.351	.022	-.295	-.300	-.292	.915	1.093
	Average Financing	-4.304E-04	.000	-.121	-.935	.354	-.048	-.124	-.116	.926	1.080

a. Dependent Variable: Average Price

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	Average Operating	Average Investing	Average Financing
1	1	2.027	1.000	.09	.09	.09	.00
	2	1.101	1.357	.02	.03	.08	.66
	3	.568	1.890	.04	.11	.81	.34
	4	.304	2.584	.85	.77	.02	.00

a. Dependent Variable: Average Price

Residuals Statistics[a]

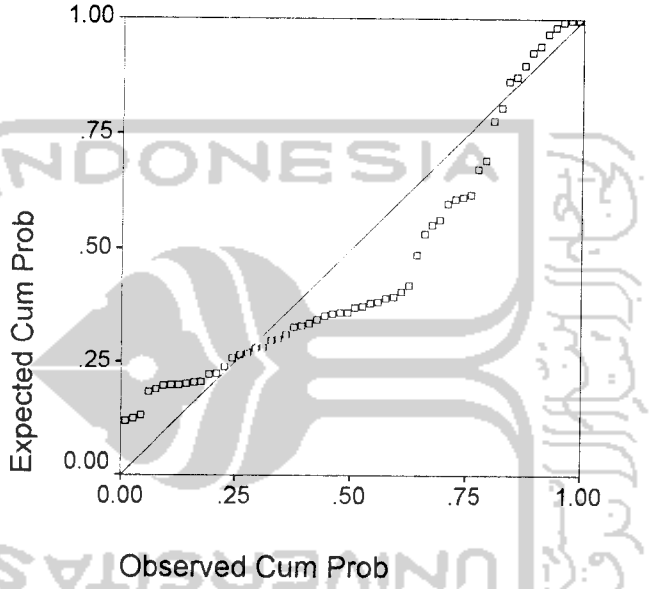
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2013.0134	11155.242	4491.3026	1671.73849	60
Residual	-5045.215	12156.717	-1.42E-12	4171.19191	60
Std. Predicted Value	-1.482	3.986	.000	1.000	60
Std. Residual	-1.178	2.839	.000	.974	60

a. Dependent Variable: Average Price

Charts

Normal P-P Plot of Regression Sta

Dependent Variable: Average Price



Regression - CFOp, CFIn, and CFFi to Stock Trading Volume

Descriptive Statistics

	Mean	Std. Deviation	N
Average Volume	6011852.7	6521200.8533	60
Average Operating	898174.67	943560.95034	60
Average Investing	-398788.3	829526.39393	60
Average Financing	-3079.267	1258198.7460	60

Correlations

		Average Volume	Average Operating	Average Investing	Average Financing
Pearson Correlation	Average Volume	1.000	.310	.181	.179
	Average Operating	.310	1.000	-.117	-.039
	Average Investing	.181	-.117	1.000	-.262
	Average Financing	.179	-.039	-.262	1.000
Sig. (1-tailed)	Average Volume	.	.008	.083	.085
	Average Operating	.008	.	.188	.382
	Average Investing	.083	.188	.	.021
	Average Financing	.085	.382	.021	.
N	Average Volume	60	60	60	60
	Average Operating	60	60	60	60
	Average Investing	60	60	60	60
	Average Financing	60	60	60	60

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Average Financing, Average Operating, Average Investing[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Average Volume

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.460[a]	.212	.169	5943516.625	.212	5.009	3	56	.004	.740

a. Predictors: (Constant), Average Financing, Average Operating, Average Investing

b. Dependent Variable: Average Volume

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.31E+14	3	1.7694E+14	5.009	.004[a]
	Residual	1.98E+15	56	3.5325E+13		
	Total	2.51E+15	59			

a. Predictors: (Constant), Average Financing, Average Operating, Average Investing

b. Dependent Variable: Average Volume

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	4730665.0	1103180.4		4.288	.000					
	Average Operating	2.454	.828	.355	2.964	.004	.310	.368	.352	.981	1.019
	Average Investing	2.304	.975	.293	2.363	.022	.181	.301	.280	.915	1.093
	Average Financing	1.400	.639	.270	2.191	.033	.179	.281	.260	.926	1.080

a. Dependent Variable: Average Volume

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	Average Operating	Average Investing	Average Financing
1	1	2.027	1.000	.09	.09	.09	.00
	2	1.101	1.357	.02	.03	.08	.66
	3	.568	1.890	.04	.11	.81	.34
	4	.304	2.584	.85	.77	.02	.00

a. Dependent Variable: Average Volume

Casewise Diagnostics[a]

Case Number	Std. Residual	Average Volume	Predicted Value	Residual
28	3.377	24711506	4639114.1	20072392
29	3.219	23605536	4473775.0	19131761

a. Dependent Variable: Average Volume

Residuals Statistics[a]

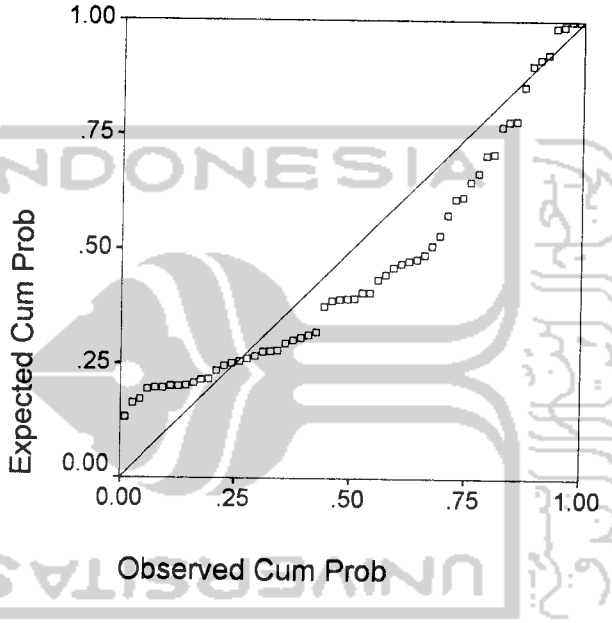
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-1107579	18816708	6011852.7	2999479.4479	60
Residual	-6622125	20072392	-1.18E-09	5790438.9825	60
Std. Predicted Value	-2.374	4.269	.000	1.000	60
Std. Residual	-1.114	3.377	.000	.974	60

a. Dependent Variable: Average Volume

Charts

Normal P-P Plot of Regression Sta

Dependent Variable: Average Volu



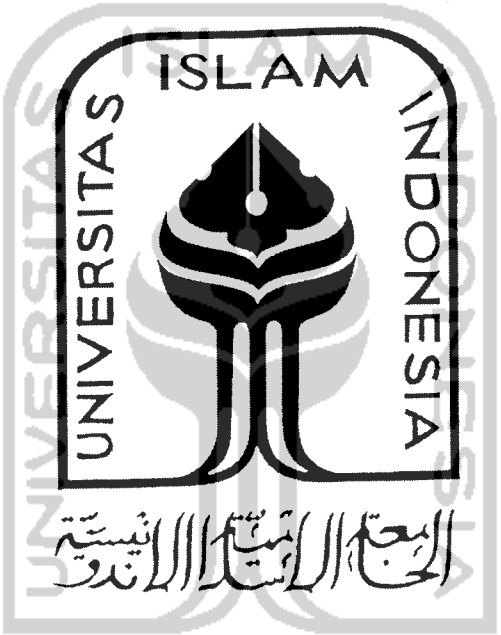
UNIVERSITAS ISLAM INDONESIA

THE INFLUENCE OF MARKET VALUE ADDED (MVA) TO STOCK RETURNS
STUDY ON MANUFACTURING COMPANIES LISTED ON JAKARTA STOCK EXCHANGE

A Bachelor Degree Thesis

Presented as Partial Fulfillment of The Requirements

To obtain **the bachelor degree** in Accounting Department



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Student Number : **98 312 594**

DEPARTMENT OF ACCOUNTING

FACULTY OF ECONOMICS

ISLAMIC UNIVERSITY OF INDONESIA

2004

THE INFLUENCE OF MARKET VALUE ADDED (MVA) TO STOCK RETURNS STUDY ON MANUFACTURING COMPANIES LISTED ON JAKARTA STOCK EXCHANGE

By Adhitya Rifantono Ditto
98312594

Approved by

Major Advisor

Drs Arief Bachtiar MSA SE.Ak — January, 2004

Language Advisor

Sari Hidayati — January, 2004

THE INFLUENCE OF MARKET VALUE ADDED (MVA) TO STOCK RETURNS
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A BACHELOR DEGREE THESIS

By

ADHITYA RIFANTONO DITTO

Student Number: 98312594

Defended before the Board of Examiners

On February 24,2004

And Declared Acceptable

Board of Examiners

Examiner 1:

Arief Bachtiar, Drs, MSA, Ak. .....

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Yogyakarta, February 24, 2004

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There is a way when there is a will.....

ACKNOWLEDGEMENT

All the praises and gratefulthings go to Allah, the cherisher and sustainer of the world, the creator, and the owner of everything, simply because only by his permissin this thesis can completely be finished. There is no single word that can best bc expressed acxccpt: Alhamdulillah.

In this opportunity, I would like to epress my deepest gratitude to my content advisor Mr. Arief Bachtiar for his advises, comments and insight during my thesis and also my convey to my language advisor Miss. Sari Hidayati for reviewing the language used in my thesis.

My gratitude also goes to my beloved father, mother, and sister, thank you for your love and understanding, you all always there, whenever I need you. Last but not least, thank you to all my friends that can not be mentioned one by one for the lovely friendship. May this friendship will never end.

The writer

Adhitya Rifantono D.

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ABSTRACT

Rifantono Ditto, Adhitya (2004), **The Influence of Market Value Added to Stock Returns, Study on Manufacturing Companies, Listed on Jakarta Stock Exchange.** International Program, Accounting Department, Faculty of Economics, Islamic University of Indonesia.

This research has purposes to reexamine the previous research which studied the influence of Market Value Added (MVA) to stock returns, tested by Yook and Mc Cabe and also to test whether or not the result can be applied in Indonesia. Population of this research is all manufacturing companies listed on Jakarta Stock Exchange. Samples of this research are 58 manufacturing companies which has complete data on Jakarta Stock Exchange. Data are gained from Jakarta Stock Exchange Corner which is existed in the Faculty of Economics, Islamic University of Indonesia. Data collected is tested by regression analysis.

From the regression analysis result with confidence level 95%, (1) MVA has positive and significant influence to stock returns. This can be showed by the value of t=12,223 and p=0,000. MVA regression coefficient is $b_1=2{,}626x10^{-09}$, it means every MVA increases Rp 1 million will cause stock returns increase $2{,}626x10^{-09}$; (2) PER has positive and significant influence to stock returns. This can be showed by the value of t=2,612 and p=0,001. PER regression coefficient is $b_2=4{,}420x10^{-5}$, it means every PER increases 1 will cause stock returns increase $4{,}420x10^{-5}$; (3) PBV has positive influence but insignificant to stock returns. This can be showed by the value of t=0,982 and p=0,328; (4) MVA, PER, and PBV collectively have positive and significant influence to stock returns. The influence is showed by determination coefficient, which is $R^2=0{,}645$ or 64,5%. Determination coefficient can be interpreted that 64,5% of the causing factors of changes in stock returns are because the changes of MVA, PER, and PBV while the rest 35,5% is caused by the other factors which is not covered by analyzed regression model.

CHAPTER 1

INTRODUCTION

1.1 STUDY BACKGROUND

The stock return is one of important variables for stock investors considered in stock market. This can be understood by considering the purpose of the investors why they invest their money in stock market. Their purpose is to get profit which hopefully can increase their wealth. The stock return is defined as the difference between selling price and buying price of stocks added by dividend, which is distributed by companies to the stockholders. The higher the selling price of stocks the higher the return of stocks.

The value of the stock price in stock market, basically, is influenced by investors perception to the fundamental factors of the companies and external factors related to the macro characteristics like political condition and economic condition. Those factors will directly influence buying-selling mechanism of stocks in the stock market. Eminent companies which have good performance and management, perhaps, will be having high stocks price, because companies with good performance and management will be perceived by investors as companies which are able to give profit or increase the wealth of the stockholders, on the contrary, if companies are not well-managed, for instance companies which are having monetary difficulty because of their disability in fulfilling their financial obligations, they will be logically considered as unprofitable companies and therefore might not

be able to survive.

Basically, the main problem faced by the investors is the needs of information, which can hopefully help them to make decision of investment in stock market. Financial report, conceptually, indeed can provide the information. As Munawir (2002,2) states that the financial report users will use the financial report to help them to make decisions, for example the investors which are interested in company stocks will take the financial report as an input to make a decision in buying that stocks. However, the information stated in financial report can not exactly describe the behavior of stock price in the stock market, so it still needs the data processing of advanced financial report which hopefully can produce the information that can describe the price stock behavior.

One method that is mostly done by practitioner even academician in their effort to get characteristics or stock price behavior in stock exchange is by doing mathematical model formation. This kind of mathematical model is basically using input in the form of data of a company condition like financial or managerial characteristics, while the output of this model is the stock returns. Some of research aimed to get price behavior model or stock returns have been conducted by Barbee, Sandip and Gary (1996). They analyzed the influence of *sales-price ratio* and *debt-equity ratio* toward the stock returns. Loughran (1997) examined the influence of *book-to-market ratio*, *firm size* toward the stock returns. Utama and Dewiyanti (1999) sought for the influence of risk, companies measurement, market-to-book value ratio, price-earning ratio to the stock returns of manufacturing companies listed on Jakarta Stock Exchange. Robert Hull (1999) examined the influence of

leverage ratio and industrial norm or regulations to stock price. While Ken C. Yook and McCabe (2000) were doing research to know the influence of MVA, PER, and PBV to the stock returns.

From the research which have already mentioned above, the writer of this graduating paper finds that Ken C. Yook and McCabe research is very interesting to be reexamined. This is because the research uses the new variable of company performance, which is Market Value Added (MVA), where the function of MVA as a predictor of stock returns is rarely used.

Conceptually, the MVA is the difference between *total market value* and *total capital supplied* in a certain time, or MVA equals to stock exchange value used in company (Mulyadi,2001;210). MVA is one indicator of company ability or management in increasing the wealth of stockholders. The positive MVA can be described as company, which is able to increase the wealth of stockholders, while negative MVA can be described as company, which is not able to increase the wealth of the stockholders. The higher the MVA the better the company, especially, if it is seen from the ability to increase the wealth of the stockholders. Therefore, companies which have high MVA can produce the high stock returns. Besides using MVA, Ken C. Yook and McCabe were also making use of price-earning ratio (PER) variable as a stock returns predictor. According to Munawir (2000;261) PER is seen by investors as company forceful measurement to get profit in the future (future earning power). Company with high PER generally will have big opportunity to rise or develop, it means that company will be perceived as good company. The last variable which is used by Ken C. Yook and McCabe to predict the price stock is

price-book value ratio (PBV); that is comparison between stock price and equity book value. Companies with high PBV which means the stock market price is higher than book value will be perceived by investors as companies that have good potential in increasing the wealth of the stockholders.

1.2 Problem Identification

The general objective of investors in capital market, especially related to buying and selling stocks, is to get return or profit. Generally, profit is gained from the increasing of stocks price and the accepting of dividend from the entity. Because dividend are not always distributing to the stock holders, thus the main sources of return and profit is the increasing of stocks price.

The value of the stock price itself, basically, is defined by the number of variables, either macro or micro. Macro variables are variables that relates to the political situation and economical situation, such as, interest rate, inflation, and foreign exchange rate; while micro variables are related to the performance of the entity itself, for example, Market value added, Price Earning Ratio, and Price Book Value. This research will emphasize on micro variables.

1.3 Problem Formulation

According to the study background, the problem formulation which is going to be described in this research;

"Are Market Value Added (MVA), Price Earning Ratio (PER), and Price to Book Value (PBV) having significant influence to the stock returns?"

1.4 Definition of Terms

1. Market Value Added

MVA is one measurement of companies' performance based on value. MVA concept can be defined as the difference between the value of companies market (including equity and liability) to the whole capital which is invested in companies. It can be written as follows (Young. 2001:26):

2. Price Earning Ratio (PER)

Price Earning Ratio is comparison between the price markets of one stock sheet to the profit per companies stocks. Price Earning Ratio is important variable to make decision to buy, sell or hold the stocks (Horngren,1996:917).

3. Price to Book Value (PBV)

Price to Book Value (PBV) is ratio between the prices per one stock to the book value of stockholders equity per sheet (Jones, 1996:461).

4. Stock Returns

Stock returns is the profit level per stock sheet, which is comparison between the differences of selling price to the buying price divided by buying price.

5. Manufacturing Companies

Manufacturing companies are kind of companies where their activity is to produce goods.

1.5. Limitation of Research Area

Some limitation, which is used in this research are as follows:

1. Some manufacturing companies listed on Jakarta Stock Exchange
2. The period of time is 2000 and 2001

1.6 The objective of the Research

The objective of the research is to conduct the empirical study on the influence of Market Value Added (MVA), Price Earning Ratio (PER) and price to book value ratio (PBV) to the stock returns of manufacturing companies in Jakarta Stock Exchange.

This research is a replication from the previous research which is conducted by Ken C. Yook and George Mc Cabe. The objective is to examine whether the research can be applied in Indonesia or not.

1.7 Research Contribution

This research will hopefully give contribution to as follows:

a. The writer. This research hopefully can be used to apply the conceptual knowledge to the real world, especially in stock investment.

b. The science. This research is hopefully able to enrich the result of empirical finding that relates to the influence of market value added (MVA), price earning ratio (PER), and price to book value (PBV) to the stock returns of manufacturing company in Jakarta Stock Exchange.

1.8 Hypothesis Formulation

a. Market Value Added (MVA) has significant positive influence to the stock returns of manufacturing company.

b. Price earning ratio (PER) has significant positive influence to the stock returns of manufacturing company.

c. Price to book value ratio (PBV) has significant positive influence to the stock returns of manufacturing company.

d. Market value added (MVA), price earning ratio (PER), and price to book value ratio (PBV) have significant influence to the stock returns of manufacturing company.