# IMPORTANCE OF CASH FLOW AND NET INCOME: OPERATING CASH FLOW MEASURES THE QUALITY OF INCOME

Special Topics in Accounting Paper



BY:

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## OPERATING CASH FLOW MEASURES THE QUALITY OF INCOME

## CHAPTER I INTRODUCTION

#### **1.1 Introduction**

This is really interesting to proof that operating cash flow can measure the quality of income since the cash from operations is also derived from net income add with the cash inflow from operation in that year. Professor Zaki Baridwan tought that the closer the net income with cash flow from operations, the better the quality of income. Furthermore, it is enthused to calculate the correlation between net income and operating cash flow in LQ 45 companies. Since, LQ 45 is mostly traded by the investors, it should have good quality net income. Mr Taura said that companies listed in LQ45 is mostly traded in capital market. It is interesting to see, there is earning management or not. It can be shown from the operating cash flow, free cash flow and net income as well.

Furthermore if we analyze deeper into free cash flow, we might find different findings. As previous research stated that a firm's market value reflects the collective judgment of the shareholders' expectations of its future cash flows. If the company produces expected cash flows or expectations remain constant, the market value should remain constant. If cash flows, or the expectations, turn out better, market value should rise; if cash flows or the expectations for them turn down, as with Xerox, value should erode. Recasting financial statements into a much more explicit and clear free cash flow format permits one to at least relate the current period's free cash flows to the current market valuation and reach some conclusions regarding those valuations (Howell, 2008).

Free cash flow is the cash that available in the company after they have paid off all their expenses. It has an explanatory for the investors. It gives the real picture of the company earnings. Since, free cash flow excludes the components of capital expenditures. Furthermore, it is taken from Cash flow from operations. It is a key indicator of a company's financial health, because without the ability to generate cash

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flows from its operations, a company may not be able to survive in the future: cash flows are the artery of a company.

Furthermore free cash flow is cash flow in excess of that required to fund all projects that have positive net present values when discounted at the relevant cost of capital (Jensen, 1986). The evidence further reveals that FCF becomes an important explanatory variable for stock returns when earnings are transitory. Unfortunately, the amount that a company spends on capital expenditures necessary to maintain current growth is not something that can be determined from the financial statements. Therefore, many analysts revert to using the earlier calculation of free cash flow, using the entire capital expenditure for the period.

Jensen's <sup>1</sup>theory focused on the availability of free cash flow and the agency costs associated with this availability. His theory associated agency costs with free cash flow: if a company has free cash flow, this cash flow may be wasted and, hence, is underutilized – resulting in an agency cost. There has been research and debate as to whether there are truly costs to free cash flow, yet his theory did shift focus away from earnings and towards to the concept of free cash flow.

Free cash flow is important to investors because it have a major effect on the long term. Logically, free cash flow should have the information content for the investors. It predicts the company can continue as a going concern (company anticipates being in operation for at least in a year). It also has a course on whether investors can anticipate being paid dividends in the future, on the stability and possible increase of the market price of the stock. This consideration is important if the investor is planning to sell the stock in the near future at a price equal to or above what he previously paid. Positive or negative cash flow might represent the operational performance of the company. It valued how good the company can generate the cash from operations excluding the capital expenditure such as cash flow from investing and financing. It might be able to value the quality of management.

Xerox Corp. provides a classic example of how potentially misleading accounting profits can be, especially in the context of a troubled company. Management stated in the company's annual report that 1998 was "an excellent year" that the earnings goes up significantly. Throughout 1999, there is a profit warning for the third quarter that stunned Wall Street. In fact, by rearranging the cash flow data to

<sup>&</sup>lt;sup>1</sup> Michael Jensen, "Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers," American Economic Review,

present it on a "free cash flow" basis, the picture changes dramatically (Howell, 2008). The suggested way to control and monitor using profitability metrics such as  $ROA^2$ , and also  $NOPAT^3$ .

Radical changes in the energy market since 1973 simultaneously generated large increases in free cash flow in the petroleum industry. It required a major shrinking of the industry. In this environment the agency costs of free cash flow were large, and the takeover market has played a critical role in reducing them. From 1973 to the late 1970's, crude oil prices increased tenfold. They were initially accompanied by increases in expected future oil prices and an expansion of the industry. As consumption of oil fell, expectations of future increases in oil prices fell. Real interest rates and exploration and development costs also increased. As a result the optimal level of refining and distribution capacity and crude reserves fell in the late 1970's and early 1980's, leaving the industry with excess capacity. At the same time profits were high. This occurred because the average productivity of resources in the industry increased while the marginal productivity decreased. Thus, contrary to popular beliefs, the industry had to shrink. In particular, crude oil reserves (the industry's major asset) were too high, and cutbacks in exploration and development (E&D) expenditures were required (Jensen, 1986).

Investor values skeptically earnings, dividends, and asset values when it comes to stock price valuation. Although they are important factors, a company's ability to generate cash will eventually fuel growth in those factors. The existence of differences in accounting practices across the companies can create slight variations in earnings calculations. It makes difficult to track true earnings growth over time and compare figures between firms. Surprisingly, free cash flow measures the cash left after paying capital expenditures and dividends. The components needed to calculate free cash flow are reported in a statement of cash flows that companies are required to file each quarter and fiscal year when filing their income statement and balance sheets. In conclusion, this research will examine the correlation of the free cash flow and the stock prices in 20 publicly traded companies in Indonesia.

Operating cash flow help to identify the relationship between accounting income and cash flows. By making the statement of cash flows, we can derive the relationship between accounting income and cash flows. By removing the accruals

<sup>&</sup>lt;sup>2</sup> Return on Asset

<sup>&</sup>lt;sup>3</sup> Net Operating Profit After Tax

from Income statement, we will get the operating cash flow. The operating cash flow will be similar to the permanent income. Moreover, the bigger gap between the net income and cash flows shows bad quality of net income. The cash from operating are coming from sales of goods or services, from interest and dividend receives. Thus are used to pay suppliers and employees. Other components are net income, depreciation, accounts payable and account receivables. Furthermore, the amount of account payable increase will reduce the amount of the operating cash flows. Otherwise, the amount of the account payable decrease, it will increase the amount of the operating cash flows. The amount of account receivable increase will reduce the amount of account account payable increase will reduce the amount of account payable increase will reduce the amount of account account account payable increase will reduce the amount of account ac

Ultimately, bills, investment, debts, dividends etc. are paid with cash, not earnings. If a firm does not generate sufficient cash in the course of its business, it will face extinction. FASB discussion memorandum suggested that cash flow data are useful supplemental disclosure because they (1) provide feedback on actual cash flows, (2) help to identify the relationship between accounting income and cash flow (3) provide information about the quality of income (4) improve comparability of information in financial reports (5) Aid in assessing flexibility and liquidity (6) Assist in predicting future cash flows.

SFAS No.95's flexibility in allowing either the direct or indirect method creates confusion.

"The complicated adjustment required by the indirect method are hard for the reader to understand and...provide corporate managers more leeway for manipulating the statement of cash flow...In many cases, these adjustment cannot be reconciled to observed changes in balance sheet accounts..."

Some of the research say that operating cash flow have significant impact to the stock prices, while some does not. Not related result find that only simultaneously have significant correlation, but not partially. Furthermore, the operating cash flow is related to the dividends. Since the dividend is the amount of money paid by the company to investors (part of the cost that should be paid to get the capital). That dividend based on the cash flow available in that year actually. In fact, the cash information is represented in the cash flow from operations. The company might not pay dividend although they have high operating cash flow. Part of the reason is that the company wants to expand the business by using cash available. That accounts will be retained earnings in the statement of financial position. Furthermore, free cash flows should be the center of major financial statement analysis, and may be directly related to current market valuations to determine if the current free cash flows support current market values. Paying attention to free cash flows also requires forming a new set of parameter that have a cash and value orientation. Management teams and investors who hold the new cash, value-oriented statements and associated measure will find that they have new insights into their businesses and investments.

#### **1.2 Problem Statement**

The problems in this research are described in the following:

- How big the correlation of the free cash flow and the stock price in Indonesian capital market.
- (2) Is it true that Free Cash flow have more information content rather than the Net Income?

#### **1.3 Research Purposes**

The purposes of this research are:

- Find the correlation between operating cash flow and the LQ45 stock prices in Indonesia
- (2) Find better information sources for stock valuation whether using operating cash flow or net income

#### **1.4 Research Benefit**

The research hopefully brings the benefit for:

- (1) Manager: the result of this paper will be the consideration for the company to pay more attention on the disclosure of operating cash flow since it might have information content to investors.
- (2) Investor: the result will be useful for investor to value the company more accurately and precisely using net income and operating cash flow.
- (3) Indonesian Stock Exchange: the result will be the consideration for IDX to issue new public policies.
- (4) Indonesian Accounting Association: the result can improve the determination of new accounting standard in Indonesia.

#### **1.5 Research Content**

This research contains 5 chapters with the systematic orders and the following explanation:

#### Chapter I : Introduction

This section describes the background of the problem, the formulation of the problem, research objectives, and benefits of the research.

#### **Chapter II** : Literature Review

This section describes the basic theory and concepts relevant to this study, a review of previous research, and the formulation of hypotheses.

#### **Chapter III : Research Methodology**

This section describes the research method that includes samples and populations, methods of data collection, definition of variables, and analysis used in this study.

#### **Chapter IV : Research Analysis**

This section describes the data analysis, discussion of results of data processing, and analysis of the results of hypothesis testing.

#### **Chapter V** : Conclusion

This section describes the conclusions, study limitations, and suggestions for further research.

## CHAPTER II LITERATURE REVIEW

#### 2.1 Cash Flow

A company's cash flow statement reports the sources and uses of cash. On the cash flow statement, cash flow is the sum of total operating, investing, and financing activities plus any foreign exchange effects. Cash from operations represents how much cash is generated or consumed producing and selling the goods and services of the firm. Cash from investing deals with the cash used in infrastructure and includes the purchase and sale of long-term investments and property, plant and equipment. Finally, cash from financing deals with the capital funding of the firm and takes inflows from additional borrowing, repayment of debt, dividend payments, and equity financing into account. Cash flows have been estimated a number of ways, which adds to the confusion about how we should value a company. Consider the simplest form of cash flow, which is the earnings before depreciation and amortization, EBDA. This cash flow is sometimes referred to as the accounting cash flow because before we had the statements of cash flow or the older, funds flow statement, EBDA was often used as a quick estimate of cash flow. The calculation is simple and only requires information from the income statement:

#### (EQ 1) EBDA = Net income + depreciation + amortization

The valuation of a company requires discounting the future cash flow to the present. The cash flows that we use in this valuation are forecasted free cash flows. The model that we use to determine a value today depends on the assumptions regarding the growth of the free cash flows. Assume r indicate the appropriate cost of capital, g represent the estimated growth rate and t indicate the period. The value of a firm is calculated by choosing the appropriate model:

| Growth assumption   | Model                | General formula                              |
|---------------------|----------------------|--|
| No growth           | Perpetuity           | Value = $\frac{FCF}{r}$                      |
| Constant growth     | Gordon growth model  | Value = $\frac{FCF_1}{r - g}$                |
| Non-constant growth | Discounted cash flow | Value= $\sum_{t=1}^{\infty} \frac{FCF_t}{r}$ |

#### 2.1.1 Operating activities

Amount of cash flows arising from operational activities indicate the performance of company generating sales. It is purely cash coming not from investing or financing even derivatives. This operating cash number comes from company main activities. It is an indicator that determines whether the operating company can generate enough cash flow to repay loans, maintain the operating capability of the enterprise, pay dividends and make new investments without relying on external sources of financing. Information about the specific components of cash flows historically along with other information useful in predicting future cash flows. Cash flows from operating activities are primarily derived from the principal revenue-producing activities of the company. Therefore, the cash flow is generally derived from transactions and other events that affect the determination of net profit or loss.

#### 2.1.2 Investing activities

The separate disclosure of cash flows arising from investing activities is important because the cash flows reflect the cash receipts and disbursements in connection with resources aimed at generating income and future cash flows.

#### 2.1.3 Financing activities

The separate disclosure of cash flows arising from financing activities is important because is useful in predicting claims on future cash flows by the suppliers of the company's capital. According to Statement of Financial Accounting Standards No. 2 (IAI, 2007), information about a company's cash flow is useful to users of financial statements as a basis for assessing the company's ability to generate cash and cash equivalents and assess the needs of the company to use the cash flow. In the process of economic decision making, users need to evaluate the company's ability to generate cash and cash equivalents as well as the certainty of placement.

#### 2.2 Information content of accounting earnings and market value of firm

The issue that different groups such as investors, shareholders, managers, employees and the government concentrate on and use profit has led to profit being introduced as an fundamental concept in accounting. So, profit is one of the most important financial information reported by companies. In fact, investors and many other users of accounting information consider profit as an important source of information to evaluate the performance of companies and regard it as one of the main components regarding pricing of stocks. Results of the first study that carried out in the area of the usefulness of accounting information by Ball and Brown showed that the securities market price reacted to announcement of net profit. In this context Penman et al (2007) state that if accounting earnings is able to predict the company's value it has a good quality.

#### 2.3 Classification of accruals to current and non-current

Financial analysts think that operating cash flows relative to earnings are a better measure for assessing the financial performance of business units because operating cash flows are less subject to distortion. So, the main question that arises is that whether accruals increase or decrease the ability of earnings in measuring company performance. It is predicted that accruals increase the ability of earnings in measuring the company performance in market (stock returns). Accordingly, the current and non-current accruals can also have different effects on firm value and performance.

# 2.4 Relationship between Earnings and its Components and Market Value of Firms

It is necessary to decompose earnings information to components of cash and current, non-current accruals. Particularly that such concept is useful to predict future cash flow and valuate the companies. Krishnan and Kumar (2008) show that there is a different relationship between cash flow and accruals in high and low levels of investment opportunities; therefore value of cash flow and accruals can be different among companies. Barreto et al (2001) state that the value relevance of earnings is not different on cash flow and it is dependent on financial reporting and other institutional

factors. Also, some studies considered value relevance of cash and accruals in terms of effect on stock returns. Therefore, there are still conflicting results about separation of value of accruals and cash flow. In researches on value relevance, evaluation and efficiency models have been complementary and advantages and disadvantages of valuation have been expressed by different researchers. Saeed Akbar et al (2011) in a study state that operational cash flow or accruals have information related to profit. Mamoun L.B. (2011) compared the predictive ability of operating cash flow to profit in Jordan stock market. The period of his study was 2009 to 2011.

#### 2.5 Efficient Market Hypothesis

The efficient market hypothesis was first expressed by Louis Bachelier and emerged as a prominent theoretic position in the mid-1960s. In general form, the hypothesis states that the price of a security at time t fully reflects all the available information at time t-1. The early literature on the efficient markets hypothesis was primarily concerned with whether market participants can make any extra normal profits by taking advantage of the information embedded in the market. EMH theory were further developed by Eugene Fama. It works with his famous efficient capital markets review published in 1970. The majority of early studies based on returnforecasting regressions provided empirical evidence in support for the efficient markets model, and the dominance of the efficient markets model in the literature continued until the late 1970s.

#### 2.5.1 Weak Form

In this form, the information set is just historical prices.

#### 2.5.2 Semi-strong Form

The concern of semi-strong form tests is whether prices efficiently adjust to other information that is obviously publicly available (e.g. announcements of annual earnings, stock splits, etc.) are considered.

#### 2.5.3 Strong Form

Strong form tests concerned with whether given investors or groups have monopolistic access to any information relevant for price formation. Fama concluded from his tests that prices seem to efficiently adjust to obviously publicly available information in weak and semi-strong form markets. Only limited evidence against the hypothesis in the strong form tests, i.e., monopolistic access to information about prices does not seem to be a prevalent phenomenon in the investment community (Fama 1970).

According to the efficient market hypothesis, stock prices always —fully reflect available information. However, this definition is too general for any empirically testable implications (Fama 1970). Fama listed three models developed by previous studies, which specified the definition in more detail.

#### 2.6 The Random Walk Model

The Random Walk Model assumes that the current price of a security —fully reflects available information implies that successive price changes (or more usually, successive one-period returns) are independent. In addition, successive changes (or returns) are identically distributed.

#### 2.7 Signaling Theory

This is consistent with the signaling theory that shows the trend of information asymmetry between company owners and investors. Internal party companies in general have more information about the real condition of the company and its prospects in the future, compared with external parties. This information asymmetry can be minimized to reveal as much information. The information disclosed is information that is expected to show the actual condition of the company. Reporting cash flows, in addition to other reports, is an effort to minimize information asymmetry. Statement of cash flows can be used as an alternative information in assessing the company's performance and prospects, as income has a great chance to practice manipulation untouched. If you look at the importance of cash flow information for users of financial statements, the reporting of cash flows expected to be responded by the market.

#### 2.8 Capital Markets

Capital markets (capital market) is a market for a variety of long-term financial instruments that can be traded, either debt securities (bonds), equities (stocks), mutual funds, derivatives and other instruments. The capital market is a means of financing for companies and other institutions (eg, government), and as a means for investing activities. Thus, capital market infrastructure to facilitate various trading activities and other related activities (www.idx.co.id). Law No. Capital Market. 8 of 1995 on Capital Markets defines capital market as activity is concerned with the public offering and trading of securities, public companies relating to the issuance of securities, as well as institutions and professions related to the effect.

According Martono and Harjito (2004), capital markets (capital market) is a market where long-term funds both debt and equity trading. Long-term funds are realized in the form of tradable securities. Securities traded in the capital market has matured over the years and there have not matured. Long-term funds that are traded in the form of debt is usually in the form of bonds (bond), while the long-term funding is in the form of ordinary share capital (common stock) and preferred stock (preferred stock). In the narrow sense, Capital markets is a place (in the physical sense) which organized securities (securities) are traded, then called the stock exchange (stock exchange).

#### 2.9 Effect of Operating Cash Flow on Stock Price

Meythi (2006) test whether there is a positive effect of operating cash flow to the stock price to earnings persistence as an intervening variable. The sample using purposive sampling method. The samples used were 100 companies listed on the JSE in the period 1999-2002. The study tested the hypothesis with multiple regression analysis method. Research results showed no effect of operating cash flow to the stock price to earnings persistence as an intervening variable.

Ekawati (2006) calculated the effect of cash flow information operations, investment cash flow and financing cash flow on stock prices at different stages of the life cycle of different companies. Sampling was purposive sampling method. The sample used was 278 companies from across industry sectors are listed on the JSE during the years 1990 to 2003 by using time series data so that there are 2320 firm-year observations, less data is incomplete and outlier. Data analysis model that is used is the multiple linear regression model using pooled cross-sectional regression.

#### 2.10 Relationship between Earnings Components and Market Value of Firms

It is important to know earnings information to components of cash and current, non-current accruals. Particularly that such concept is useful to predict future cash flow and valuate the companies. Krishnan and Kumar (2008) show that there is a different relationship between cash flow and accruals in high and low levels of investment opportunities; therefore value of cash flow and accruals can be different among companies. Barreto et al (2001) state that the value relevance of earnings is not different on cash flow and it is dependent on financial reporting and other institutional factors. Also, some studies considered value relevance of cash and accruals in terms of effect on stock returns. Therefore, there are still conflicting results about separation of value of accruals and cash flow. In researches on value relevance, evaluation and efficiency models have been complementary and advantages and disadvantages of valuation have been expressed by different researchers. Saeed Akbar et al (2011) in a study state that operational cash flow or accruals have information related to profit. Mamoun L.B. (2011) compared the predictive ability of operating cash flow to profit in Jordan stock market. The period of his study was 2009 to 2011.

#### 2.11 Free Cash Flow

Free cash flow is cash flow in excess of that required to fund all projects that have positive net present values. Moreover, free cash flow is taken from operating cash flow which exclude the amount of accruals recorded. Not all firms have free cash flow; growth firms in particular often have more good projects than they can finance. Free cash flow can be returned in the amount of dividend, stock repurchased and debt retirement. Since, we have to know that the problem of excess amount of cash will caused low rate of return, less monitoring management by capital market, less pressure to operate firm profitably, negative NPV investment projects, firm may become a takeover target. The value of the firm is obtained by discounting the free cash flow to the firm at the weighted average cost of capital. Embedded in this value are the tax benefits of debt (in the use of the after-tax cost of debt in the cost of capital) and expected additional risk associated with debt (in the form of higher costs of equity and debt at higher debt ratios). Just as with the dividend discount model and the FCFE model, the version of the model used will depend upon assumptions made about future growth (Inselbag, 2008).

## CHAPTER III RESEARCH METHODOLOGY

#### **3.1 Research Type**

This research is classified as causality research. It attempts to find the correlation between variables. This study classified into causality research, this study conducted an experiment in predicting the effect of one variable with another variable (Cooper and Schindler, 2008: 144), then the description reveals large or small an influence or relationship between variables is expressed in the figures. This study examined the correlation between operating cash flow and net income influence the LQ 45 Stock price.

#### **3.2 Populations and Sample**

Population is a collection of elements that are used to test a hypothesis and then drawn some conclusions (Cooper and Schindler, 2008: 374). Populations tend to have a number of data sources and the quality of certain characteristics (Nawawi, 2003: 141). This study uses a population of most traded company included in LQ 45 listed (publicly traded) in the Indonesia Stock Exchange in January 2008-2012 as found in Osiris, Yahoo Finance, and IDX

Engineering sample selection in this study was nonprobability sampling; the method used is based on the sample selection aims judgment (purposive sampling). Samples was determined based on availability of the data concerning to researchers and particular criteria (Cooper and Schindler, 2008:397). In this method, the researchers first identify all the characteristics of the population to be studied and studied the characteristics, and then assign the sample is based on his own judgment. The population is still manufacturing industry issuers listed on the Stock Exchange until the end of December 2012, there were 45 listed companies, then samples taken 20 companies of the total population of the manufacturing industry. Panel Data processing methods processed the samples. The present study is based on applied objective and its data are collected by ex post facto approach (through the past information) and the method of data collection is descriptive – correlative because its main purpose is to determine the existence, degree and type of relationship between test variables. Statistical community of this study is all non-financial companies

(manufacturing) listed on Indonesian Stock Exchange from 2008 until the end of 2012. The samples studied in this research have been selected by screening method and according to the following criteria: (1) Complete information of all studied companies should exist during two years prior to time domain of the present study; (2) The companies should not have changed their financial year during the study period; (3) The type of companies' activity should be productive, therefore, financial, investment institutions, banks, insurance firms, leasing and holding companies have not considered in the sample. (4) In order to increase comparability the end of companies' fiscal year should be on March

#### 3.3 Types and Sources of Data

The data presented is stated as the fact that researchers from the research environment. Most data reflect the truth is the data that is closest to the phenomenon. The data used in this study is secondary data, secondary data has at least an interpretation of events that is stored in the form of data records (Cooper and Shindler, 2008:92), which samples the issuer's annual report including the use of other supporting data sources through: a textbook, articles, resources and the official website of the scientific journal, official website of stock price, official website of the sample companies.

The type of data in this study belong to a kind of documentary data, which include historical reports (Indriantoro and Supomo, 2002: 146). Secondary data is data source obtained indirectly through intermediaries media that processed the data derived from Indonesian Capital Market Directory, published by the Institute for Economic and Finance Research (ECFIN), for 2008-2012 obtain data from Net Income, Cash Flow from Operations (CFO) is obtained from OSIRIS 2008-2012 in FEB library. Stock return data in 2008, 2009, 2010, 2011, 2012 obtained from yahoofinance.com.

#### 3.4 Definition and Measurement of Variables

#### **3.4.1 Dependent Variables**

The dependent variable is often also called output variables, criteria, consequently. The dependent variable is a variable that is affected (Sugiyono, 2004: 33). The dependent variables used in hypothesis is the return of the shares represented in 2008-2012. Calculate stock returns in n using Total Return (Rn) (Hartono, 2006).

#### **3.4.2 Independent Variables**

This variable is often referred to as the stimulus variables, predictors, and antecedent. Independent variable is a variable that affects or is the cause of the change of 1 dependent variable (Sugiyono, 2004:33). Independent variable in this research is net income and free cash flow with the following model.

Stock Price = NI + FCF

#### 3.4.3 Control Variables

Control variable is a variable that is used to help interpret the relationship between variables (Cooper and Schindler, 2008: 701). In this study, the hypothesis 1 using the control variables is: total return in 2012, 2011, 2010, 2009, 2008. In calculating their return using the formula.

#### **3.4.4 Moderating variable**

Moderating variable is the variable that will strengthen or weaken the relationship between the independent variable on the dependent variable (Ghozali, 2009:199).

#### 3.5 Method of Data Analysis

#### **3.5.1 Linear Regression**

Statistical analysis was used to determine R square to find the significance correlation between net income and operating cash flow, operating cash flow and stock price, net income and stock price

#### 3.5.2 Normality Test Data

Normality test aims to test whether the regression model, or residual confounding variable has a normal distribution. T test and F assumes that residual values follow a normal distribution. If consumed is violated, the statistical test to be invalid. This study uses the Kolmogorov-Smirnov test, by testing whether the residual is normally distributed. Residual value is said to be normally distributed if more than 5% (Ghozali, 2009).

#### 3.5.3 Assumptions Classical Test

Testing regression models through several stages, after the normality test of data regression models also need to be tested in order to meet the criteria of the

classical assumptions BLUE (Best Linear Unbiased Estimator) (Gujarati, 2004: 563). Classical assumption test in this study:

#### a. Test Multicollinearity

Multicollinearity test aims to test whether the regression model found a correlation between the independent variables (independent). Good regression models should not occur in the correlation between the independent variables. The method used in this research is to measure the presence of multicollinearity using the VIF (Variance Infraction Factors), and tolerance: with (1-R) 2 = Tolerance. Both of these measures indicate which of each independent variable is explained by the other independent variables. Cut-off value which is commonly used to indicate the presence of multicollinearity are tolerance values <0.10 or equal to VIF> 10 (Gujarati, 2004: 362).

#### **b.** Test Autocorrelation

Autocorrelation test aims to test whether the linear regression model is no correlation between the error in period t with bullies bully error in period t-1 (previous). If there is a correlation, then there is a problem called autocorrelation. Autocorrelation arises because sequential observations over time are related to each other. Good regression models are models that are free of autocorrelation. This study uses the Durbin Watson test to detect autocorrelation.

#### (c) Test heterocedasticity

Heterocedastisicity test aims to test whether the regression model occurs in difference residual variance from one observation to another observation. If the residual variance from one observation to the other observation is remains and if it is called different homocedasticity called heterocedastity. In this study heterocedasticity tested using the test Glejser. Glejser proposes to regressing the absolute value of residuals against independent variables (Gujarati, 2004): If a statistically significant independent variables affect the dependent variable, then there is an indication heterocedasticity, with a probability of significance at the 5% level of confidence.

## CHAPTER IV ANALYSIS AND DISCUSSION

#### 4.1 Sample Description

The selection of the sample in this study begins with determining populationadjusted kriteris certain criteria set by the author in order to obtain a set of samples, with the following explanation: (1) This study uses a population of manufacturing industry companies mostly traded (LQ45) in the Indonesia Stock Exchange in January 2012 as contained in yahoofinance.com (2) The company has a complete financial data in the form of Net Income, Cash From Operation, and Return in 2002-2008.

#### 4.2 Normal test

| Descriptives |                             |       |                 |             |  |  |
|--------------|-----------------------------|-------|-----------------|-------------|--|--|
|              |                             |       | Statistic       | Std. Error  |  |  |
|              | Mean                        |       | 1206959.2857    | 67330.73706 |  |  |
|              |                             | Lower | 1042206.9073    |             |  |  |
|              | 95% Confidence Interval for | Bound |                 |             |  |  |
|              | Mean                        | Upper | 1371711.6642    |             |  |  |
|              |                             | Bound |                 |             |  |  |
|              | 5% Trimmed Mean             |       | 1218924.8175    |             |  |  |
|              | Median                      |       | 1220131.0000    |             |  |  |
| VAR00001     | Variance                    |       | 31733997072.905 |             |  |  |
|              | Std. Deviation              |       | 178140.38586    |             |  |  |
|              | Minimum                     |       | 829679.00       |             |  |  |
|              | Maximum                     |       | 1.37E+006       |             |  |  |
|              | Range                       |       | 539181.00       |             |  |  |
|              | Interquartile Range         |       | 128133.00       |             |  |  |
|              | Skewness                    |       | -1.940          | .794        |  |  |
|              | Kurtosis                    |       | 4.441           | 1.587       |  |  |
|              | Mean                        |       | 365270.0000     | 81414.61581 |  |  |
|              |                             | Lower | 166055.6117     |             |  |  |
|              | 95% Confidence Interval for | Bound |                 |             |  |  |
|              | Mean                        | Upper | 564484.3883     |             |  |  |
| VAR00003     |                             | Bound |                 |             |  |  |
|              | 5% Trimmed Mean             |       | 363981.0556     |             |  |  |
|              | Median                      |       | 406121.0000     | I           |  |  |
|              | Variance                    |       | 46398377677.333 | I           |  |  |
|              | Std. Deviation              |       | 215402.82653    | I           |  |  |
|              | Minimum                     |       | 103145.00       | ļ           |  |  |

|          | Maximum                     |              | 650596.00        |              |
|----------|-----------------------------|--------------|------------------|--------------|
|          | Range                       |              | 547451.00        |              |
|          | Interquartile Range         |              | 440901.00        |              |
|          | Skewness                    |              | .135             | .794         |
|          | Kurtosis                    |              | -1.753           | 1.587        |
|          | Mean                        |              | 217028.7143      | 49403.58308  |
|          |                             | Lower        | 96142.5014       |              |
|          | 95% Confidence Interval for | Bound        |                  |              |
|          | Mean                        | Upper        | 337914.9272      |              |
|          |                             | Bound        |                  |              |
|          | 5% Trimmed Mean             |              | 217173.4603      |              |
|          | Median                      |              | 220836.0000      |              |
| VAR00005 | Variance                    |              | 17084998149.571  |              |
|          | Std. Deviation              | 130709.59471 |                  |              |
|          | Minimum                     | 73305.00     |                  |              |
|          | Maximum                     | 358147.00    |                  |              |
|          | Range                       | 284842.00    |                  |              |
|          | Interquartile Range         | 262434.00    |                  |              |
|          | Skewness                    | 033          | .794             |              |
|          | Kurtosis                    | -2.522       | 1.587            |              |
|          | Mean                        |              | 608246.2857      | 105007.65552 |
|          |                             | Lower        | 351301.8090      |              |
|          | 95% Confidence Interval for | Bound        |                  |              |
|          | Mean                        | Upper        | 865190.7625      |              |
|          |                             | Bound        |                  |              |
|          | 5% Trimmed Mean             |              | 601577.2063      |              |
|          | Median                      |              | 541206.0000      |              |
| VAR00007 | Variance                    |              | 77186254030.571  |              |
|          | Std. Deviation              |              | 277824.14227     |              |
|          | Minimum                     |              | 304331.00        |              |
|          | Maximum                     |              | 1.03E+006        |              |
|          | Range                       |              | 727874.00        |              |
|          | Interquartile Range         |              | 503399.00        |              |
|          | Skewness                    |              | .544             | .794         |
|          | Kurtosis                    |              | -1.337           | 1.587        |
|          | Mean                        |              | 244054.8571      | 175609.34763 |
|          |                             | Lower        | -185645.7368     |              |
|          | 95% Confidence Interval for | Bound        |                  |              |
| VAR00009 | Mean                        | Upper        | 673755.4510      |              |
|          |                             | Bound        |                  |              |
|          | 5% Trimmed Mean             |              | 264350.1190      |              |
|          | Median                      |              | 222305.0000      |              |
|          | Variance                    |              | 215870500830.476 |              |

|          | Std. Deviation              | 464618.66173   |                 |              |
|----------|-----------------------------|----------------|-----------------|--------------|
|          | Minimum                     |                | -666209.00      |              |
|          | Maximum                     |                | 789004.00       |              |
|          | Range                       |                | 1455213.00      |              |
|          | Interquartile Range         |                | 454916.00       |              |
|          | Skewness                    |                | -1.228          | .794         |
|          | Kurtosis                    |                | 2.618           | 1.587        |
|          | Mean                        |                | 128060.8571     | 23073.31782  |
|          |                             | Lower          | 71602.4823      |              |
|          | 95% Confidence Interval for | Bound          |                 |              |
|          | Mean                        | Upper          | 184519.2320     |              |
|          |                             | Bound          |                 |              |
|          | 5% Trimmed Mean             |                | 126016.1190     |              |
|          | Median                      |                | 105291.0000     |              |
| VAR00011 | Variance                    | 3726645967.810 |                 |              |
|          | Std. Deviation              |                | 61046.26088     |              |
|          | Minimum                     | 69624.00       |                 |              |
|          | Maximum                     | 223303.00      |                 |              |
|          | Range                       | 153679.00      |                 |              |
|          | Interquartile Range         | 117145.00      |                 |              |
|          | Skewness                    | .785           | .794            |              |
|          | Kurtosis                    | -1.145         | 1.587           |              |
|          | Mean                        |                | 321366.4286     | 49301.22133  |
|          |                             | Lower          | 200730.6858     |              |
|          | 95% Confidence Interval for | Bound          |                 |              |
|          | Mean                        | Upper          | 442002.1713     |              |
|          |                             | Bound          |                 |              |
|          | 5% Trimmed Mean             |                | 318722.0317     |              |
|          | Median                      |                | 323841.0000     |              |
| VAR00013 | Variance                    |                | 17014272971.952 |              |
|          | Std. Deviation              |                | 130438.77097    |              |
|          | Minimum                     |                | 188072.00       |              |
|          | Maximum                     |                | 502260.00       |              |
|          | Range                       |                | 314188.00       |              |
|          | Interquartile Range         |                | 268162.00       |              |
|          | Skewness                    |                | .283            | .794         |
|          | Kurtosis                    |                | -1.848          | 1.587        |
|          | Mean                        |                | 475390.8571     | 122848.32988 |
|          |                             | Lower          | 174791.8229     |              |
| VAR00015 | 95% Confidence Interval for | Bound          |                 |              |
|          | Mean                        | Upper          | 775989.8914     |              |
|          |                             | Bound          |                 |              |
|          | 5% Trimmed Mean             |                | 475967.2302     |              |

|          | Median                      |       | 654141.0000      |             |
|----------|-----------------------------|-------|------------------|-------------|
|          | Variance                    |       | 105641985080.810 |             |
|          | Std. Deviation              |       | 325026.12984     |             |
|          | Minimum                     |       | 49522.00         |             |
|          | Maximum                     |       | 890885.00        |             |
|          | Range                       |       | 841363.00        |             |
|          | Interquartile Range         |       | 525834.00        |             |
|          | Skewness                    |       | 209              | .794        |
|          | Kurtosis                    |       | -2.006           | 1.587       |
|          | Mean                        |       | 4168.7143        | 51554.78157 |
|          |                             | Lower | -121981.2917     |             |
|          | 95% Confidence Interval for | Bound |                  |             |
|          | Mean                        | Upper | 130318.7203      |             |
|          |                             | Bound |                  |             |
|          | 5% Trimmed Mean             |       | 3679.5159        |             |
|          | Median                      |       | 16046.0000       |             |
| VAR00017 | Variance                    |       | 18605268515.905  |             |
|          | Std. Deviation              |       | 136401.13092     |             |
|          | Minimum                     |       | -185296.00       |             |
|          | Maximum                     |       | 202439.00        |             |
|          | Range                       |       | 387735.00        |             |
|          | Interquartile Range         |       | 250312.00        |             |
|          | Skewness                    |       | 234              | .794        |
|          | Kurtosis                    |       | 551              | 1.587       |
|          | Mean                        |       | 128218.8571      | 22710.95782 |
|          |                             | Lower | 72647.1453       |             |
|          | 95% Confidence Interval for | Bound |                  |             |
|          | Mean                        | Upper | 183790.5690      |             |
|          |                             | Bound |                  |             |
|          | 5% Trimmed Mean             |       | 128224.0635      |             |
|          | Median                      |       | 146765.0000      |             |
| VAR00019 | Variance                    |       | 3610513236.810   |             |
|          | Std. Deviation              |       | 60087.54644      |             |
|          | Minimum                     |       | 38932.00         |             |
|          | Maximum                     |       | 217412.00        |             |
|          | Range                       |       | 178480.00        |             |
|          | Interquartile Range         |       | 87480.00         |             |
|          | Skewness                    |       | 142              | .794        |
|          | Kurtosis                    |       | 431              | 1.587       |
|          | Mean                        |       | 314255.0000      | 65768.65015 |
| VAR00021 | 95% Confidence Interval for | Lower | 153324.9105      |             |
|          | Mean                        | Bound |                  |             |

|          |                             | Upper | 475185.0895     |             |
|----------|-----------------------------|-------|-----------------|-------------|
|          |                             | Bound |                 |             |
|          | 5% Trimmed Mean             |       | 312824.2222     |             |
|          | Median                      |       | 367628.0000     |             |
|          | Variance                    |       | 30278607401.333 |             |
|          | Std. Deviation              |       | 174007.49237    |             |
|          | Minimum                     |       | 111732.00       |             |
|          | Maximum                     |       | 542532.00       |             |
|          | Range                       |       | 430800.00       |             |
|          | Interquartile Range         |       | 313779.00       |             |
|          | Skewness                    |       | 039             | .794        |
|          | Kurtosis                    |       | -2.130          | 1.587       |
|          | Mean                        |       | -1266.8571      | 19521.90850 |
|          |                             | Lower | -49035.2464     |             |
|          | 95% Confidence Interval for | Bound |                 |             |
|          | Mean                        | Upper | 46501.5321      |             |
|          |                             | Bound |                 |             |
|          | 5% Trimmed Mean             |       | 574.1587        |             |
|          | Median                      |       | 8007.0000       |             |
| VAR00023 | Variance                    |       | 2667734380.143  |             |
|          | Std. Deviation              |       | 51650.11501     |             |
|          | Minimum                     |       | -87391.00       |             |
|          | Maximum                     |       | 51719.00        |             |
|          | Range                       |       | 139110.00       |             |
|          | Interquartile Range         |       | 102513.00       |             |
|          | Skewness                    |       | 776             | .794        |
|          | Kurtosis                    |       | 353             | 1.587       |
|          | Mean                        |       | 314255.0000     | 65768.65015 |
|          |                             | Lower | 153324.9105     |             |
|          | 95% Confidence Interval for | Bound |                 |             |
|          | Mean                        | Upper | 475185.0895     |             |
|          |                             | Bound |                 |             |
|          | 5% Trimmed Mean             |       | 312824.2222     |             |
|          | Median                      |       | 367628.0000     |             |
| VAR00025 | Variance                    |       | 30278607401.333 |             |
|          | Std. Deviation              |       | 174007.49237    |             |
|          | Minimum                     |       | 111732.00       |             |
|          | Maximum                     |       | 542532.00       |             |
|          | Range                       |       | 430800.00       |             |
|          | Interguartile Range         |       | 313779.00       |             |
|          | Skewness                    |       | - 039           | 794         |
|          | Kurtosis                    |       | -2.130          | 1.587       |
| VAR00027 | Mean                        |       | -1266.8571      | 19521.90850 |
|          |                             |       |                 |             |

|          |                             | Lower | -49035.2464     |             |
|----------|-----------------------------|-------|-----------------|-------------|
|          | 95% Confidence Interval for | Bound |                 |             |
|          | Mean                        | Upper | 46501.5321      |             |
|          |                             | Bound |                 |             |
|          | 5% Trimmed Mean             |       | 574.1587        |             |
|          | Median                      |       | 8007.0000       |             |
|          | Variance                    |       | 2667734380.143  |             |
|          | Std. Deviation              |       | 51650.11501     |             |
|          | Minimum                     |       | -87391.00       |             |
|          | Maximum                     |       | 51719.00        |             |
|          | Range                       |       | 139110.00       |             |
|          | Interquartile Range         |       | 102513.00       |             |
|          | Skewness                    |       | 776             | .794        |
|          | Kurtosis                    |       | 353             | 1.587       |
|          | Mean                        |       | 35620.4286      | 8605.69349  |
|          |                             | Lower | 14563.0552      |             |
|          | 95% Confidence Interval for | Bound |                 |             |
|          | Mean                        | Upper | 56677.8020      |             |
|          |                             | Bound |                 |             |
|          | 5% Trimmed Mean             |       | 35045.4206      |             |
|          | Median                      |       | 29225.0000      |             |
| VAR00029 | Variance                    |       | 518405723.619   |             |
|          | Std. Deviation              |       | 22768.52485     |             |
|          | Minimum                     |       | 14200.00        |             |
|          | Maximum                     |       | 67391.00        |             |
|          | Range                       |       | 53191.00        |             |
|          | Interquartile Range         |       | 50805.00        |             |
|          | Skewness                    |       | .847            | .794        |
|          | Kurtosis                    |       | -1.202          | 1.587       |
|          | Mean                        |       | 144631.8571     | 46149.91981 |
|          |                             | Lower | 31707.0714      |             |
|          | 95% Confidence Interval for | Bound |                 |             |
|          | Mean                        | Upper | 257556.6429     |             |
|          |                             | Bound |                 |             |
|          | 5% Trimmed Mean             |       | 144258.3968     |             |
|          | Median                      |       | 171565.0000     |             |
| VARUUU3I | Variance                    |       | 14908705691.810 |             |
|          | Std. Deviation              |       | 122101.21085    |             |
|          | Minimum                     |       | 17412.00        |             |
|          | Maximum                     |       | 278574.00       |             |
|          | Range                       |       | 261162.00       |             |
|          | Interquartile Range         |       | 239956.00       |             |
|          | Skewness                    |       | 125             | .794        |

|          | Kurtosis                    |           | -2.567          | 1.587       |
|----------|-----------------------------|-----------|-----------------|-------------|
|          | Mean                        |           | 171409.5714     | 52607.88042 |
|          |                             | Lower     | 42682.7254      |             |
|          | 95% Confidence Interval for | Bound     |                 |             |
|          | Mean                        | Upper     | 300136.4175     |             |
|          |                             | Bound     |                 |             |
|          | 5% Trimmed Mean             |           | 172673.3571     |             |
|          | Median                      |           | 181858.0000     |             |
| VAR00033 | Variance                    |           | 19373123574.952 |             |
|          | Std. Deviation              |           | 139187.36859    |             |
|          | Minimum                     |           | -1180.00        |             |
|          | Maximum                     | 321251.00 |                 |             |
|          | Range                       |           | 322431.00       |             |
|          | Interquartile Range         |           | 285329.00       |             |
|          | Skewness                    |           | 126             | .794        |
|          | Kurtosis                    |           | -2.297          | 1.587       |
|          | Mean                        |           | 33898.7143      | 15086.35874 |
|          |                             | Lower     | -3016.2757      |             |
|          | 95% Confidence Interval for | Bound     |                 |             |
|          | Mean                        | Upper     | 70813.7043      |             |
|          |                             | Bound     |                 |             |
|          | 5% Trimmed Mean             |           | 32677.9603      |             |
|          | Median                      |           | 12510.0000      |             |
| VAR00035 | Variance                    |           | 1593187539.238  |             |
|          | Std. Deviation              |           | 39914.75340     |             |
|          | Minimum                     |           | 138.00          |             |
|          | Maximum                     |           | 89633.00        |             |
|          | Range                       |           | 89495.00        |             |
|          | Interquartile Range         |           | 83063.00        |             |
|          | Skewness                    |           | .651            | .794        |
|          | Kurtosis                    |           | -1.816          | 1.587       |
|          | Mean                        |           | 61375.8571      | 14782.13069 |
|          |                             | Lower     | 25205.2864      |             |
|          | 95% Confidence Interval for | Bound     |                 |             |
|          | Mean                        | Upper     | 97546.4279      |             |
|          |                             | Bound     |                 |             |
| VAR00037 | 5% Trimmed Mean             |           | 61204.8968      |             |
| VARCOUDT | Median                      |           | 68032.0000      |             |
|          | Variance                    |           | 1529579715.143  |             |
|          | Std. Deviation              |           | 39109.84167     |             |
|          | Minimum                     |           | 19256.00        |             |
|          | Maximum                     |           | 106573.00       |             |
|          | Range                       | 87317.00  |                 |             |

|          | Interquartile Range          |       | 83124.00        |             |
|----------|------------------------------|-------|-----------------|-------------|
|          | Skewness                     |       | 035             | .794        |
|          | Kurtosis                     |       | -2.369          | 1.587       |
|          | Mean                         |       | 264043.7143     | 61974.42934 |
|          |                              | Lower | 112397.7487     |             |
|          | 95% Confidence Interval for  | Bound |                 |             |
|          | Mean                         | Upper | 415689.6799     |             |
|          |                              | Bound |                 |             |
|          | 5% Trimmed Mean              |       | 262264.9603     |             |
|          | Median                       |       | 292197.0000     |             |
| VAR00039 | Variance                     |       | 26885809246.238 |             |
|          | Std. Deviation               |       | 163968.92769    |             |
|          | Minimum                      |       | 65721.00        |             |
|          | Maximum                      |       | 494384.00       |             |
|          | Range                        |       | 428663.00       |             |
|          | Interquartile Range          |       | 291842.00       |             |
|          | Skewness                     | .079  | .794            |             |
|          | Kurtosis                     |       | -1.746          | 1.587       |
|          | Mean                         |       | 114166.0000     | 18360.10629 |
|          |                              | Lower | 69240.4383      | 1           |
|          | 95% Confidence Interval for  | Bound |                 | 1           |
|          | Mean                         | Upper | 159091.5617     | l           |
|          |                              | Bound |                 | l           |
|          | 5% Trimmed Mean              |       | 113785.3333     | I           |
|          | Median                       |       | 107487.0000     | 1           |
| VAR00041 | Variance                     |       | 2359654520.667  | 1           |
|          | Std. Deviation               |       | 485/6.2/529     | 1           |
|          | Minimum                      |       | 55223.00        | 1           |
|          | Maximum                      |       | 179901.00       | 1           |
|          | Range                        |       | 124730.00       | 1           |
|          |                              |       | 00413.00        | 704         |
|          | SKEWHESS                     |       | -1 875          | 1 587       |
|          | Moon                         |       | 30402 5714      | 2084 03113  |
|          | Medi                         |       | 22956 2101      | 5004.05115  |
|          | 050/ Ostfidence Interval for | Lower | 22000.2191      | I           |
|          | 95% Confidence Interval for  | Bound | 07040.0000      | l           |
|          | Mean                         | Upper | 37948.9238      | l           |
| VAR00043 |                              | Bouna |                 | l           |
|          | 5% Trimmed Mean              |       | 30299.9127      | l           |
|          | Median                       |       | 28602.0000      | l           |
|          | Variance                     |       | 66578736.286    |             |
|          | Std. Deviation               |       | 8159.57942      |             |

| Minimum             |        | 20852.00 |       |      |
|---------------------|--------|----------|-------|------|
| Maximum             |        | 41801.00 |       |      |
| Range               |        | 20949.00 |       |      |
| Interquartile Range |        | 15515.00 |       |      |
| Skewness            |        | .305     |       | .794 |
| Kurtosis            | -1.799 |          | 1.587 |      |

We can see that almost all 20 company's data is normally distributed since the number of kurtosis and skewness is near to 0 or even minus. It is good to use the data to calculate the linest.

#### 4.4 Linear Regression Test

The linear regression below shows the correlation of 20 company's net income and operating cash flow using scatterplot in excell:







I see the gudang garam operating cash flow. It shows the – value in 2011, then in 2012 there is no annual report for Gudang garam independently published. But, I saw the Gudang Garam annual report is recorded by JT (Japanese Tobacco). The number of operating cash flow and net income is not significantly correlated. And true that the cash flow can measures the quality of income.

Unilever and persero shows the high R square. Both company is growing well. We can say that we can see the performance of company without heavily calculate all company and compare. We just enough see the correlation of operating cash flow and net income. If it is good and positive, then those company is good. The company is best performing is not always has high net income, as long as the correlation between operating and net income is positive and near to 1, it is really good. The minus number of operating cash flow has also not really good signals.

# CHAPTER V CONCLUSION AND SUGGESTION

#### 5.1 Conclusion

Actually I want to analyze the correlation between operating cash flow and stock prices. But, there is a problem in the time gap between operating cash flow and stock price. We know that cash flow statement is only publishing annually in general and quarterly for the big companies. The longest time for stock price update is monthly. I have already calculate the relation between the stock price and operating cash flow. I try to modify the variable in the stock price, I find the similar date in the 31 December stock price and then correlate with the new annual report in 31 December to make both variable in the same time. Since I want to see if there is stock price change after or before the annual report is announced. But again, this correlation is not coming up with the positive hypothesis which is the operating cash flow have more information content rather than net income. Finally, this research will help investor to evaluate the quality of net income using operating cash flow. Since Operating cash flow representing the productivity the quality of the company performance. Furthermore, the net income and cash flow data are published in the same date and change in the same frequency. That's way I can find the more relevance correlation between those two variables and see the conclusion. In conclusion, I found that the high rank company has the amount of net income close to the operating cash flow. The more near the gap, the better the quality of that income. We can see that Unilever is included in high R square for the correlation in the 6 years. Hearing from the news that Unilever is expanding widely recently. We can say that the operating and free cash flow really measures the quality of income.

It is true that operating income can represent more the performance of the company. I found the comparative amount between Gudang Garam and Unilever. Gudang garam's operating cash flow show negative value. It is shown before GG was acquired by Japanese Tobacco. Although, I find that the bottom or income numbers show normal values and stable. While, I saw from the cash flow, it show in contradictory. I found it when I do this research, and it is quite surprising me. Connecting to the lecture I got from class, it is true that cash flow represent the performance of company in that year.

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#### **5.2 Suggestion**

It needs time to calculate all the correlation and test in this research field. It is not enough to do in only two weeks. In the real thesis, it might needs 1,5 months to fix all the research in class at all just focus on research. The next research hopefully can expand the data not only 20 companies, and stretching the time longer not only 6 years. 6 years is not really showing trend. However, too long it might be come with the flat line since too many. Using statistical test to see the best amount of sample used and data used. Take an IFRS affect to the variable in this research will be more interesting discussion. I haven't yet use all the research methodology to derive the analysis in chapter 4 due to the limited time. I just have made the linear regression. Hopefully, the future researcher can continue to do research based on the research methodology that I have developed above.

#### REFERENCE

- Rezae & Safari (2013) . Investigating the Relationship between Cash Flow, Current and Non-Current Accruals and Market Value of Firms: Journal of Basic and Applied Scientific Research. J. Basic. Appl. Sci. Res., 3(1)934-946, 2013
- Meythi & Selvy (2012). Pengaruh Informasi Laba Dan Arus Kas Terhadap Harga Saham: Akurat Jurnal Ilmiah Akuntansi Nomor 07 Tahun Ke-3 Bulan Januari-April 2012 ISSN: 2086-4159
- Jensen (1986). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers: *American Economic Review*, May 1986, Vol. 76, No. 2, pp. 323-329.
- Penman, S. H., X. J. Zhang. 2002. Modeling Sustainable Earnings and P/E Ratios with Financial Statement Analysis. Columbia University, working paper http;ssrn.com, diakses pada tanggal 14 Oktober 2010
- Watts., Zimmerman. 1986. Positive Accounting Theory, University of Rochester, New Jersy:Prentice Hall
- Wolk, et, al., (2008), Accounting Theory Conseptual Issues in a Political and Economic Environtement, Seventh Edition, California:Sage Publications, Inc.
- Hartono, Jogiyanto., 2006, Teori Portofolio dan Analisis Investasi, edisi kelima, Yogyakarta: BPFE Yogyakarta.
- Cooper., & Schindler. 2008. Business research Methods, Tenth Edition, New York:McGraw Hill.
- Howell, (2008). Tying Free Cash Flows To Market Valuations.
- Fama, E. F. (1970). "Efficient Capital Markets: A Review of Theory and Empirical Work." The Journal of Finance 25(2): 383-417.
- http://www.idx.co.id
- http://finance.yahoo.com
- OSIRIS accessed in library FEB UGM
- Gujarati et all (2008). Basic Econometrics: Fifth Edition.

#### ATTACHMENT



#### Daftar Saham yang Masuk dalam Penghitungan Indeks LQ45 Periode Februari s.d. Juli 2013

| No. | Kode   | Nama Saham                                | Keterangan |
|-----|--------|---|------------|
| 1.  | AALI   | Astra Agro Lestari Tbk.                   | Tetap      |
| 2.  | ADRO   | Adaro Energy Tbk.                         | Tetap      |
| 3.  | AKRA   | AKR Corporindo Tbk.                       | Tetap      |
| 4.  | ANTM   | Aneka Tambang (Persero) Tbk.              | Tetap      |
| 5.  | ASII   | Astra International Tbk.                  | Tetap      |
| 6.  | ASRI   | Alam Sutera Reality Tbk.                  | Tetap      |
| 7.  | BBCA   | Bank Central Asia Tbk.                    | Tetap      |
| 8.  | BBNI   | Bank Negara Indonesia (Persero) Tbk.      | Tetap      |
| 9.  | BBRI   | Bank Rakyat Indonesia (Persero) Tbk.      | Tetap      |
| 10. | BBTN   | Bank Tabungan Negara (Persero) Tbk.       | Baru       |
| 11. | BDMN   | Bank Danamon Indonesia Tbk.               | Tetap      |
| 12. | BHIT   | Bhakti Investama Tbk.                     | Tetap      |
| 13. | BKSL   | Sentul City Tbk.                          | Tetap      |
| 14. | BMRI   | Bank Mandiri (Persero) Tbk.               | Tetap      |
| 15. | BMTR   | Global Mediacom Tbk.                      | Baru       |
| 16. | BSDE   | Bumi Serpong Damai Tbk.                   | Tetap      |
| 17. | BUMI   | Bumi Resources Tbk.                       | Tetap      |
| 18. | BWPT   | BW Plantation Tbk.                        | Tetap      |
| 19. | CPIN   | Charoen Pokphand Indonesia Tbk.           | Tetap      |
| 20. | EXCL   | XL Axiata Tbk.                            | Tetap      |
| 21. | GGRM   | Gudang Garam Tbk.                         | Tetap      |
| 22. | GIAA   | Garuda Indonesia (Persero) Tbk.           | Baru       |
| 23. | HRUM   | Harum Energy Tbk.                         | Tetap      |
| 24. | ICBP   | Indofood CBP Sukses Makmur Tbk.           | Tetap      |
| 25. | IMAS   | Indomobil Sukses Internasional Tbk.       | Baru       |
| 26. | INCO   | Vale Indonesia Tbk.                       | Tetap      |
| 27. | INDF   | Indofood Sukses Makmur Tbk.               | Tetap      |
| 28. | INDY   | Indika Energy Tbk.                        | Tetap      |
| 29. | INTP   | Indocement Tunggal Prakasa Tbk.           | Tetap      |
| 30. | ITMG   | Indo Tambangrava Megah Tbk.               | Tetap      |
| 31. | JSMR   | Jasa Marga (Persero) Tbk.                 | Tetap      |
| 32. | KLBF   | Kalbe Farma Tbk.                          | Tetap      |
| 33. | LPKR   | Lippo Karawaci Tbk.                       | Tetap      |
| 34. | LSIP   | PP London Sumatra Indonesia Tbk.          | Tetap      |
| 35. | MAIN   | Malindo Feedmill Tbk.                     | Baru       |
| 36. | MAPI   | Mitra Adiperkasa Tbk.                     | Baru       |
| 37. | MNCN   | Media Nusantara Citra Tbk.                | Tetap      |
| 38  | PGAS   | Perusahaan Gas Negara (Persero) Tbk.      | Tetap      |
| 39. | PTBA   | Tambang Batubara Bukit Asam (Persero) Tbk | Tetap      |
| 40  | SMCB   | Holcim Indonesia Thk                      | Baru       |
| 41  | SMGR   | Semen Gresik (Persen) Thk                 | Tetan      |
| 42  | SSIA   | Surva Semesta Internasa Thk               | Baru       |
| 43. | TLKM   | Telekomunikasi Indonesia (Persero) Tbk.   | Tetan      |
| 44  | UNTR   | United Tractors Thk                       | Tetan      |
| 45. | UNVR   | Unilever Indonesia Thk                    | Tetap      |
| 101 | 211111 | STORE THE ADDRESS AND A DATE              | 1000       |

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| PT<br>TELEKOMUNI<br>KASI<br>INDONESIA<br>TBK |               | PT UNITED<br>TRACTORS<br>TBK |               | INDOFOOD<br>SUKSES<br>MAKMUR |               | HANJAYA<br>MANDALA<br>SAMPOERNA |               |
|--|---------------|------------------------------|---------------|------------------------------|---------------|---------------------------------|---------------|
| Net Income                                   | Operating Act | Net Income                   | Op. Cash Flow | ID                           | Op. Cash Flow |                                 | Op. Cash Flow |
| 1,333,679                                    | 2,899,948     | 599,862                      | 654,534       | 338,472                      | 768,774       | 1,032,205                       | 424,234       |
| 1,208,931                                    | 3,368,578     | 650,596                      | 1,151,078     | 358,147                      | 547,849       | 889,241                         | 1,222,521     |
| 1,281,889                                    | 3,084,307     | 430,326                      | 269,320       | 343,249                      | 767,772       | 713,492                         | 784,442       |
| 1,205,546                                    | 3,161,228     | 406,121                      | 542,661       | 220,836                      | 246,224       | 541,206                         | 458,042       |
| 829,679                                      | 1,899,785     | 207,879                      | 332,349       | 80,815                       | 209,759       | 304,331                         | 370,726       |
| 1,368,860                                    | 2,952,065     | 158,961                      | 282,968       | 104,377                      | 278,281       | 385,842                         | 190,192       |
| 1,220,131                                    | 2,959,555     | 103,145                      | 190,881       | 73,305                       | 164,751       | 391,407                         | 392,316       |

| PT BUMI<br>RESOURCES<br>TBK |               | PT SINAR MAS<br>AGRO<br>RESOURCE<br>AND<br>TECHNOLOGY<br>TBK |               | PT UNILEVER<br>INDONESIA<br>TBK |               | PERUSAHAAN<br>GAS NEGARA<br>(PERSERO)<br>TBK |               |
|-----------------------------|---------------|--|---------------|---------------------------------|---------------|--|---------------|
| Net Income                  | Op. Cash Flow | Net Income   | Op. Cash Flow | Net Income                      | Op. Cash Flow | Net Income                                   | Op. Cash Flow |
| -666,209                    | 240,029       | 223,303  | 353,500       | 502,260                         | 538,832       | 890,885                                      | 1,166,418     |
| 216,290                     | 195,265       | 196,772  | 122,316       | 459,026                         | 602,191       | 654,141                                      | 916,689       |
| 311,180                     | 310,733       | 140,057  | -25,556       | 376,330                         | 402,132       | 693,262                                      | 1,060,576     |
| 190,449                     | 246,038       | 79,627   | 13,348        | 323,841                         | 349,011       | 662,664                                      | 739,673       |
| 645,365                     | 959,194       | 81,752   | 170,527       | 188,072                         | 217,648       | 49,522                                       | 295,241       |
| 789,004                     | 189,959       | 105,291  | 19,546        | 209,172                         | 239,554       | 167,428                                      | 311,583       |
| 222,305                     | 39,589        | 69,624   | 41,641        | 190,864                         | 241,110       | 209,834                                      | 259,635       |

| INDAH KIAT<br>PULP & PAPER<br>CORPORATION |               | PT INDOSAT<br>TBK |               | PT GUDANG<br>GARAM TBK |               | PT CHANDRA<br>ASRI<br>PETROCHEMICAL<br>TBK |               |
|---|---------------|-------------------|---------------|------------------------|---------------|--|---------------|
| Net Income                                | Op. Cash Flow | Net Income        | Op. Cash Flow | Net Income             | Op. Cash Flow | Net Income                                 | Op. Cash Flow |
| 49,608                                    | 160,138       | 38,932            | 725,423       | 416,581                | 410,335       | -87,391                                    | 145,982       |
| 16,046                                    | 161,794       | 106,797           | 807,065       | 542,532                | -9,957        | 8,007                                      | -4,259        |
| 13,030                                    | 148,873       | 71,908            | 759,876       | 460,698                | 319,178       | -51,142                                    | 163,640       |
| -158,479                                  | 109,262       | 159,388           | 430,979       | 367,628                | 347,361       | 51,371                                     | 63,962        |
| 202,439                                   | 424,742       | 146,765           | 508,869       | 146,919                | 176,639       | -1,075                                     | -5,586        |
| 91,833                                    | 418,798       | 217,412           | 880,908       | 153,695                | 154,291       | 51,719                                     | 64,885        |
| -185,296                                  | 418,857       | 156,330           | 629           | 111,732                | 211,266       | 19,643                                     | -1,256        |

| PT AKR<br>CORPORINDO<br>TBK |               | PT CHAROEN<br>POKPHAND<br>INDONESIA<br>TBK |               | XL AXIATA<br>TBK |               | INDOMOBIL<br>SUKSES<br>INTERNASIONAL<br>TBK |               |
|-----------------------------|---------------|--|---------------|------------------|---------------|---|---------------|
| Net Income                  | Op. Cash Flow | Net Income                                 | Op. Cash Flow | Net Income       | Op. Cash Flow | Net Income                                  | Op. Cash Flow |
| 67,391                      | -17,498       | 278,574                                    | 175,337       | 286,938          | 932,581       | 83,210                                      | -298,504      |
| 67,214                      | 102,802       | 259,700                                    | 118,639       | 312,029          | 929,768       | 89,633                                      | -133,981      |

| 34,546 | 47,547 | 245,585 | 267,233 | 321,251 | 977,210 | 49,852 | -132,506 |
|--------|--------|---------|---------|---------|---------|--------|----------|
| 29,225 | 71,399 | 171,565 | 197,398 | 181,858 | 821,094 | 12,510 | 82,147   |
| 16,409 | 34,652 | 19,843  | 19,135  | -1,180  | 367,944 | 1,801  | -16,427  |
| 20,358 | 23,469 | 19,744  | -57,512 | 26,700  | 424,389 | 147    | -8,824   |
| 14,200 | 26,306 | 17,412  | 10,653  | 72,271  | 317,137 | 138    | -5,758   |

| PT JAPFA<br>COMFEED<br>INDONESIA<br>TBK |               | PT<br>INDOCEMENT<br>TUNGGAL<br>PRAKARSA<br>TBK |               | PT KALBE<br>FARMA TBK |               | PT ENSEVAL<br>PUTERA<br>MEGATRADING<br>TBK |               |
|---|---------------|--|---------------|-----------------------|---------------|--|---------------|
| Net Income                              | Op. Cash Flow | Net Income                                     | Op. Cash Flow | Net Income            | Op. Cash Flow | Net Income                                 | Op. Cash Flow |
| 102,923                                 | 31,046        | 494,384  | 588,980       | 179,961               | 142,848       | 41,801                                     | 37,268        |
| 68,032                                  | -8,285        | 396,573  | 428,193       | 163,422               | 162,458       | 38,704                                     | 42,392        |
| 106,573                                 | 122,018       | 358,327  | 375,121       | 142,926               | 139,323       | 28,602                                     | 23,707        |
| 86,644                                  | 72,793        | 292,197  | 338,768       | 107,487               | 145,062       | 35,007                                     | 7,569         |
| 19,799                                  | 4,268         | 136,373  | 126,505       | 55,223                | 63,104        | 20,852                                     | 19,904        |
| 19,256                                  | 1,872         | 104,731  | 149,426       | 75,134                | 38,637        | 24,663                                     | 521           |
| 26,404                                  | 22,439        | 65,721   | 134,464       | 75,009                | 71,021        | 23,189                                     | 22,918        |