

THE EFFECT OF THE CASH FLOWS, GROSS PROFIT AND COMPANY SIZE ON INDONESIAN STOCK RETURNS (A Study on the Chemical and Basic Industry Companies During The Periods of 2009-2014)

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Abstract: *This study aims to test empirically the effect of the cash flows (the operating cash flow; the investment cash flow; and the financing cash flow), gross profit, and company size towards the Indonesian chemical and basic industry companies' stock returns.*

The results showed that in partial the operating cash flow, financing cash flow, gross profit and the size of the company have an effect on stock returns, while the investment cash flow has no effect on stock returns. The results also showed that the cash flows, gross profit and the size of the company have an effect on stock returns simultaneously.

Keywords: *operating cash flow, investment cash flow, financing cash flow, gross profit, company size.*

JEL Classification: G3.

1. INTRODUCTION

The purpose of the investment is to maximize the return of investment, by considering the investment risk factors and uncertainties. Uncertainty will encourage the investors to always be cautious in their investment decisions especially in capital market. In order to minimize the investment risks, investor will collecting an information as many as possible especially from the issuers (the company). This information will so useful for the investors, hence they will be able to analyze and assess the stock to be selected and yet determine the level of expected return in determining the investment.

An overview of risk and expected return of stocks can be seen through qualitative and quantitative information (Kurniawan, 2000). In addition, various considerations and accurate analysis need to be done by the investor before they

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decide to buy, sell or hold the stocks to achieve the expected level of an optimal return. The investors should get a lot of information about the state of the companies in which they want to invest for reducing their investment uncertainty. The important source of information that is required by investors is the financial statements.

The company's financial statements serve as a major source of financial information which is very important for a number of users in making economic decisions. The parameter showing the company performance which gets the main concern from the investors and creditors seen from its financial statements is about profits and cash flow. The earning information is used to assess the management performance and help to estimate the profitability in the long term. In this study, the company's gross profit is used to indicate how far the company is able to cover the cost of its products. The more profit the company generate, the dividend will be greater. In addition, if the company's ability to generate profits increases, it will be followed by the appreciation of its share price as well.

In addition to gross profit, the investors will use the information of the company's cash flow to make their investment decision. This cash flow information can help investors to assess the company's ability to generate cash and cash equivalents and compare the present value of the future cash flows of the various companies. The cash flow consists of three components, that is first, the cash flow from operating activities which is the cash flow arising from transactions affecting net income, Second, the cash flow from investing activities derived from the company's activities in terms of investment in fixed assets and securities, and third, the cash flow from financing activities arising from transactions affecting the company's capital and debt.

When the investors and creditors faced two financial accounting performance measures, they have to be make sure that the performance measures which become the focus of attention is the measure of performance that is able to describe the economic conditions and the better prospect of the company's future growth. Therefore, in addition to the both performance measures used, the investors and creditors also need to consider the financial characteristics of each company. The financial characteristics that may vary among companies will cause the relevance of the accounting figures are not similar for all companies. The size of the company can be used to represent the financial characteristics of the company. One of the measures that indicate the size of the company is the assets of the company.

Many previous researches stated that cash flows had an impact on stock returns i.e. researches conducted by Miller and Rock (1985), Rayburn (1986), Livnat and Zarowin (1990), Hartono (2000), Utari (2006), Pradhono and Christiawan (2004),

while the other studies conducted by Ali (1994), Kurniawan (2000) and Hardian (2010) stated that cash flow had no effect on stock returns. In addition, the previous researches stated that profits had an influence on stock returns i.e. Febriyanto (2005), Cahyasuci (2008), Djaman and Pagalung (2011), Trisnawati (2013), Putriani and Sukarta (2014), while the other study conducted by Imran (2011) stated that gross profit had no effect on stock returns. For an addition, this study will employ the size of the company also, since the results of researches conducted by Cooke (1992), Miswanto (1999), Daniati and Suhairi (2006) concluded that the size of the company may affected the stock returns.

Based on the results of the previous researches, it is shown that there are research gaps between the variables that affect the stock returns. So, it is necessary to doing the further research about the effect of the cash flows, gross profit and size on the stock returns in order to determine whether the cash flow consists of operating cash flows, investment cash flow, cash flow financing, gross profit or size of the company has the influence on stock returns.

2. LITERATURE REVIEW AND DEVELOPMENT OF HYPOTHESIS

2.1. Stock Returns

Stock is a sign of ownership or possession of any person or entity within a company. Tandelilin (2001) defines stock as proof of ownership of the assets owned by the company that issued the shares. While stock returns can be interpreted as the advantage enjoyed by investors on stock investments made. Return has two components: current income and capital gain (Wahyudi, 2003). Return can also be interpreted as a measure of money obtained through consideration of shares for a certain periods. (Trisnawati, 2013).

2.2. Cash Flow and Stock Returns

Cash flow is an important part in the company because the absence of cash flow may affect the going concern of the company. Cash flow is indispensable; any problems regarding the cash flow are the most common cause of business failure (Trisnawati, 2013). The cash flow's components consists of operating cash flow, investing cash flow and financing cash flow.

In SFAS No. 2 dealing with the cash flow in the year of 2012 it is said that the cash flows from operating activities are primarily derived from the principal revenue-producing activities of the entity. Therefore, cash flows are generally derived from transactions and other events that enter into the determination of net profit or loss. Investing activities are activities involving the acquisition or disposal of long-term assets (current assets) as well as other investments that are

not included in cash equivalents, including the activities to borrow money and collect the receivables as well as acquire and sell investments and long-term assets production (IAI, 2012). In SFAS No. 2 in the year of 2012, it is stated that separate disclosure of cash flows arising from financing activities is important because it is useful in predicting claims on future cash flows by providers of capital entities.

Miller and Rock (1985) tested the market reaction in the proxy of the stock return of the notices for the cash flow component. The results show that the market will react negatively towards the financing cash flows and the investing cash flows have the positive effects on stock returns. Rayburn (1986) also found that there was a correlation between operating cash flow and accrual aggregates with stock returns. Ali (1994) concluded that the cash flow does not contain information relative to the stock return. Livnat and Zarowin (1990) proved that a component of cash flows had a stronger positive correlation with stock returns.

Kurniawan (2000) concluded that the study that failed to show a correlation between operating cash flow and earnings components with stock returns. Hartono (2000) states that the operating cash flow, investing cash flow and financing cash flows had a significant effect on stock prices. Another opinion expressed by Pradhono and Christiawan (2004) obtained the result that the variable operating cash flow and earnings significantly influence the returns received by shareholders. Daniati and Suhairi (2006) provides empirical evidence that the information on the content of investment cash flows have an impact on stock returns, but operating cash flow has no effect on stock returns. Utari (2006) showed that the net cash flow from operating activities, investing and financing affected the earnings and stock returns. Hardian (2010) research results were the total flows, investment cash flow, cash flow financing with no significant effect on stock returns, while the investment cash flow had a negative effect on stock returns.

Based on these results, there is a research gap of the independent variables, namely the operating cash flow, investing cash flow and financing cash flows to stock return. There were many researches that stated that cash flows had an impact on the stock returns i.e. researchers conducted by Miller and Rock (1985), Rayburn (1986), Livnat and Zarowin (1990), Hartono (2000), Utari (2006), Pradhono and Christiawan (2004), while the other studies stated cash flow has no effect on stock returns, i.e. Ali (1994), Kurniawan (2000), Hardian (2010). To determine whether the cash flow had an effect on stock returns, then the hypothesis formulated as follows:

H1: Operating Cash Flow has an effect on stock returns

H2: Investing Cash Flow has an effect on stock returns

H3: Financing Cash Flow has an effect on stock returns

2.4. Gross Profit and Stock Returns

Gross profit is the difference between the cost of goods sold and sales. Profit does not have a definition which indicates economic significance, as well as other elements of financial statements (Prastowo, 2011). Profit can be used as a measure for assessing the success of the company. Measurement of the profit will not provide useful information if they do not describe the causes of the emergence of profit. Source of the causes of profit has an important role in assessing the progress of the company.

Djaman and Pagalung (2011) conducted a study which showed that the profit had an effect on abnormal stock return. Imran (2011) concluded that the gross profit variable had no effect on stock returns. Trisnawati (2013) states that there are significant changes between the variable profits on stock returns. While Putriani and Sukartha (2014) stated that earnings had positive effect on stock returns. Febrianto (2005) proves that the gross profit figures which have earnings quality is better than the other two earnings figures presented in the income statement, more operative, and better able to provide a better picture of the relationship between earnings with stock prices. Cahyasuci (2008) improved earnings cumulative effect on stock returns. Based on that argumentations, then the hypothesis is formulated as follows;

H4: Gross Profit has an effect on stock returns

2.5. Size and Stock Returns

A company size describes total assets, number of sales, average total sales and average total assets represented by the company. Thus, the company size is the size or magnitude of the assets owned by the company (Sujianto, 2001). The company size can be measured by using total assets, sales, and equity of the company. One measure that indicates the company size is the total assets of the company.

Cooke (1992) proved the company size affected the disclosure in the annual report of the company. Miswanto (1999) regarding the size of the company's business risk found that the size of the risks affected the company's business and the empirical evidence has shown that the small company has a risk and higher returns than large companies. Daniati and Suhairi (2006) concluded that the change of the company size affected the expected stock return. Based on those descriptions hence the formulation of the hypothesis is:

H5: Company Size has an effect on stock returns.

3. METHODOLOGY

This study employs a quantitative approach and two types of variables, namely the independent variable and the dependent variable. The independent variable

used in this research are the operating cash flow/CFO (X1), investing cash flows/CFI (X2), financing cash flow/CFF (X3), gross profit/GP (X4), company size (X5), while the dependent variable used is the Stock Return (Y).

3.1. The Operational Definition of Variables Cash flow

Cash flow is a basic financial statement that reports the cash received, cash paid and amendments of cash generated from operating activities, investing activities and financing activities conducted by the business during one period in a format stating the beginning and ending cash balances.

Cash flows from the operating activities (CFO)

Operating activity is the principal revenue that is generated by the activities conducted by companies and the other activities that are not investment and financing. The change in cash flow because of the investing activities is the excess of operating cash flows subtracted from the operating cash flow of the previous period or it is calculated by using the following formula (Trisnawati, 2013):

$$\Delta CFO = \frac{CFO_t - CFO_{t-1}}{CFO_{t-1}}$$

ΔCFO = the change in cash flow because of the operating activities

Cash Flows from Investing Activities (CFI)

Investing activities are those involving the acquisition or disposal of long-term assets (current assets) as well as their other investments which are not included in cash equivalents. Changes in cash flows from investing activities represents the excess of the investment cash flow in the previous period subtracted from the cash flow from the investment in the previous period and divided by the cash flow from doing the investment of the previous period or it can be calculated by using the following formula (Trisnawati, 2013):

$$\Delta CFI = \frac{CFI_t - CFI_{t-1}}{CFI_{t-1}}$$

ΔCFI = the change in the cash flow because of the investment activities

Cash Flows from Financing Activities (CFF)

The activity to raise the funds from the owner provides the prospect to generate income from the funds, borrow and pay back the debt, or do long-term loan to pay

the debt. The change in the financing activity is the excess of cash flows subtracted from funding financing cash flow of the previous period and divided by funding cash flow of the previous period or it can be calculated by using the following formula (Trisnawati, 2013):

$$\Delta CFF = \frac{CFF_t - CFF_{t-1}}{CFF_{t-1}}$$

ΔCFF = change in the funding cash flow

Gross profit

Gross profit is the difference of the company's revenue subtracted from the cost of goods sold. It can be calculated by using the following equation (Imran, 2011):

$$\Delta GP = GP_{it} - GP_{it-1} / GP_{it-1}$$

Description:

GP_{it} = Gross profit i in period of t

GP_{it-1} = Gross profit i in period of t-1

Company Size

The size of the company can be measured by using total assets, sales, or equity of the company. One measure used to indicate the size of the company is the size of total assets. The company size can be expressed in the following equation (Djaman and Pagalung, 2011): $\Delta TA = TA_{it} - TA_{it-1} / TA_{it-1}$

Stock Return

Stock return is income expressed as a percentage of the initial investment capital. Investment income in this stock is the benefit of buying and selling the shares, if it gets a profit, it is called capital gain and if it generates loss, it is called the capital loss (Trisnawati, 2013).

$$R_{it} = (P_{it} - P_{it-1}) / P_{it-1}$$

Description

R_{it} = the stock returns of i in period t

P_{it} = price of stock of i in period t

P_{it-1} = price of stock of i in period t-1

3.2. Method of Collecting Data

Data used in this research is secondary data. The data were obtained from Indonesia Capital Market Directory 2009-2014 published by Indonesia Stock Exchange.

3.3. Population and Sample

The population of this study is the basic and chemical industry which contains ceramic, porcelain and glass's sub-sectors with 6 companies included. Panel data from 2009-2014 employed with 36 observations.

3.4. Model of Analysis

OLS techniques was used in this study to test the hypothesis statistically and the equation is as follows:

$$Y = a + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + e$$

Description:

Y = stock return

a = constant

X1 = cash flow from operating activities (CFO)

X2 = cash flow from investing activities (CFI)

X3 = cash flow from financing activities (CFF)

X4 = gross profit (GP)

X5 = the size of the company

e = residual error.

Table 1
The OLS Results

	<i>Coefficients</i>	<i>Std. Error</i>	<i>T</i>
Constant	0.328	0.287	1.142
CFO (X1)	0.029	0.006	4.833**
CFI (X2)	0.083	0.042	1.965*
CFF (X3)	0.044	0.142	0.313
GP (X4)	1.233	0.079	15.608**
TA (X5)	-0.480	0.125	-3.839**
R ² : 0.707	F Value : 17.901		
R Value : 0.841			

* significant at 5 percent level

** significant at 1percent level

4. RESULTS AND DISCUSSION

The Results of OLS Analysis

The OLS regression analysis was intended to test the extent and the direction of the influence of the independent variables on the dependent variable. The independent variables in this study are the CFO (X1), CFI (X2), CFF (X3), GP (X4) and TA (X5). And the dependent variable is the stock return (Y).

The above mentioned table produces the OLS equation as follows:

$$Y = 0.328 + 0.029X1 + 0.083X2 + 0.044X3 + 1.233X4 - 0.480X5 + e$$

The Test of the Coefficient of Determination (R²)

The coefficient of determination (R²) essentially measures the ability of model to explain the variations in the dependent variable. The coefficient of determination is between zero and one (0 <R <1). The greater the coefficient of determination is the greater variation of the independent variables affect the dependent variable.

The R value describes the degree of correlation between the independent variables and the dependent variable. Table 1. Explain that the R value is 0.841. This means the independent variables, namely the operating cash flow, cash flow of investment, the financing cash flow, gross profit and company size have a strong relationship with the dependent variable.

Based on Table 1, the coefficient determination is 0.707 and this means that 70.7% per cent of the stock return's variation is explained by a change of the variable of operating cash flow, changes in investment cash flow, financing cash flow, gross profit and the company size simultaneously, and the remaining 29.3 percent is explained by other variables which are not included in this study.

F Statistical Test

F statistical test basically shows that all independent variables are included in the model and simultaneously have an influence on the dependent variable. Based on the statistical test F showed in Table 1. it can be concluded that the cash flow's components and the company's gross profit has simultaneous effect on the stock return. This findings support the research conducted by Trisnawati (2013) which stated that cash flow from the operating activities, cash flow from the investing activities and cash flow from financing activities simultaneously affect the gross profit with stock return.

T -Statistical Test

Table 1. Shows that the cash flow from operating activities's coefficient is significant at 1 percent level of significance. Hence, the cash flow from the operating activities

significantly affects the stock returns. Cash flow report from the operating activities contains the information that determines whether the operation of the company can generate sufficient cash flows to repay loans, maintain the operating capability of the enterprise, pay dividends and make new investments without relying on the external financing sources so that the change in cash flow from the operating activities will give a positive signal to investors, and the investors will buy stocks of companies that in turn will increase stock returns. The investors will look at the cash flow report from the operating activities such as the information that can be used for making investment decisions. This finding supports the research conducted by Trisnawati (2013), which explains that the cash flow from the operating activities have a significant influence on the stock returns.

The cash flow from investing activities is significant at 5 percent significance level, so it can be concluded that the cash flow from investing activities significantly affect stock returns. The cash flow report from the investing activities includes information concerning the disposal of long-term assets (current assets) and other investments which are not included in cash equivalents. The investors in this case should consider the cash flow report from doing the investing activities. If the investment cash flow decreases, it will reflect that there will be additional revenue from doing the investment outputs so that the investors will be attracted by the addition of the company's revenue. This support the results of the research conducted by Trisnawati (2013), which explains that the cash flow from the investing activities have a significant influence on stock returns.

The cash flow from financing activities do not have any significant effect on stock returns. The investors in this case should not consider the cash flow from the financing activities. Financing cash flow reported by the companies should not been used as a consideration in the decision to invest by the investors. This is in line with research conducted by Djaman and Pagalung (2011) which states that cash flow from the financing activities have no significant and positive effect on the stock returns.

The gross profit have a significant effect toward stock returns on 1 percent level of significance. The investors assume that companies with huge profits should able to distribute greater dividends and gives the advantage to the investors. The interest and the benefits gained by the investors are greater and this will encourage the investors take buy action. As a result, the stock returns increase. This research results support the research conducted by Imran (2011) which states that the gross profit significantly influences the stock returns.

The total asset has a significant effect with negative sign toward stock returns on 1 percent level of significance. Contrary with common beliefs that companies with large size demonstrate high maturity and win the trust of the investors. In

this study, the bigger asset can lead to lower stock returns. This may occurred since the stock prices of big companie tend to overvalued hence will lead to lower stock returns. These results support the research conducted by Ganerse (2012) which states that the size of the company have a significant influence on the stock returns.

5. CONCLUSION

Cash flow from the operating activities has an impact on the stock returns. Operating cash flow is the cash flow or the transactions done by the company that produce the principal revenues that enter or exit in the determination of the net income. The higher cash flow from operating activities shows that the company is able to operate properly. Investors must consider the operating cash flow as an information that can be used for decision making so that they can assess the company's ability to generate cash and finance the company's activities without depending on other funding sources.

Cash flows from the investing activities affect the stock return. Cash flows from investing activities includes information concerning the acquisition or the disposal of long-term assets (current assets) and other investments which are not included in cash equivalents. The companies with increasing value of investment cash flow, shows that there are an addition on investment activities so it is possible that in the future, the income derived from the investment will increase.

Cash flows from the financing activities do not affect the stock returns. Investors do not see financing cash flow as their consideration in investment, due to financing cash flows in the form of long-term loans. If the company has a huge debt, the level of investment risk is also higher so that the company can not provide benefits or better returns. In this case investors feel insecure in making the investments.

The gross profit shows a significant and positive influence on stock returns. The company with the ability to generate huge profits, the company is able to pay greater dividends so that this will draw the investors' main attention and they will put them into consideration in making their decision to invest. The investors will be attracted by huger profits.

The company size shows a significant and positive influence on the stock returns. The company size can be a benchmark size of the company. The greater the total assets are, the larger the company makes a profit, and it will produce bigger dividend and higher stock price.

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