

INVESTMENT DECISION AND *FINANCIAL CONSTRAINTS*: EMPIRICAL STUDY ON INDONESIA STOCK EXCHANGE*

*Riskin Hidayat*¹

Abstract

This research aims to test the sensitivity level of liquidity and investment opportunity to investment decision between non-financially constrained and financially constrained firms. Sample in this research is the firm of non finance which enlist in Indonesia Stock Exchange from period 2003 to 2007, obtained sample 136 firms with 680 observations. Result of research refer that liquidity and investment opportunity have an influence on positive to investment decision. Liquidity is more sensitive to investment decision for financially constrained firms. Investment opportunity is more sensitive to investment decision for non financially constrained.

JEL Classification: E22, G32, O16.

Key words: Investment decision, liquidity, financially constraint.

¹ Riskin Hidayat [riesk_qjen@yahoo.co.id] is graduated from Magister Sains FEB-UGM and now a lecturer on STIE 'YPPI' Rembang.

I. INTRODUCTION

Investment decision is an important factor in corporate financial function. Fama (1978) stated that corporate value is purely determined by investment decision. The argumentation can be interpreted that the investment decision is important, because to reach the corporate goal which is maximizing stockholders' prosperity will only be generated through corporate investment activity.

The purpose on investment decision is to reach a high profit level with a certain level of risk. The high profit level with a manageable risk, it is expected to increase the corporate value, which means increasing the prosperity of stockholders. In other words, if in investing, a corporate can make a profit by utilizing the corporate resources efficiently, the corporation will earn a trust from investor to buy its stock. Thus the higher the corporate profit is, the higher the corporate value. It means the prosperity earned by stockholder will be higher.

Investment decision includes investment on short-term asset (current asset) and long-term asset (fixed asset). Short-term asset is usually defined as asset with less than one year time period or less than one business cycle, in this case that fund invested on the current asset is expected to be reimbursed in short-term or less than a year and is earned at once. The purpose of a corporation investing in a short-term is to be used as working capital and corporate operational. The examples of current asset are supply, receivable, and cash.

Meanwhile long-term asset or fixed asset is defined as asset with more than one year time period; in this case fund invested on long-term asset will be reimbursed step by step. The purpose of a corporation investing on a long-term asset is to increase the corporate value.

Investment decision on this research is a *capital expenditure* which is investment on fixed asset such as land or property, building, and equipment. Capital expenditure is fund expended by a corporation which is with this expenditure the corporate will earn benefit more than on year. Basic motive of capital expenditure is to expand, replace, or up date fixed asset or to look for any benefit that may be *less tangible* in a long-term. Capital expenditure is part of *capital budgeting*. According to Riyanto (1997) capital budgeting is the overall planning process and taking decision regarding to capital expenditure with more than one year reimbursement period.

Capital investment is one of an important aspect in investment decision beside asset composition determination. Decision of capital allocation into investment proposals which its benefit will be realized in the future should be well considered and prepared. The impact of future uncertainty, benefit earned is also uncertain, so that the investment proposal contains some risks. As the consequence, investment proposal should be evaluated and be connected with the expected risk and result.

According to Modigliani and Miller (1958) that a perfect market condition has no relation to investment decision and funding decision. According to Arifin (2005), even though the perfect market assumption is omitted, separation between investment decision and funding decision will keep occurring even there is a little modification which is manager has to use cost of capital average most weighs as *discount rate*. Even when the model structure is not relevant, because of either tax factor or other factors, still, there is no direct relation between investment and funding. The thing is investment program is firstly decided, and then funding can be decided after that. To ensure that investment is truly intended to maximizing corporate value, then investment decision should be independent towards funding decision.

Investment decision can not be directly observed by external party. Some of studies done in term of investment decision are from Myers (1977) who introduced *investment opportunity set*. Investment opportunity set gives an extended directions which is corporate value depends on its future expenditure. So that corporate prospect can be estimated from investment opportunity. Investment opportunity set is combination between assets in place and investment choice in the future with positive *net present value*.

According to Gaver and Gaver (1993), investment opportunity is a corporate value that its amount depends on expenditures determined by management in the future. In this case, it is currently the investment choices that are expected to generate higher profit. This statement is in accordance with Smith and Watts (1992) that stated that investment opportunity set is corporate value component which is the result from choices to invest in the future. According to Kallapur and Trombley (1999) that corporate investment opportunity can not be observed by external party so it needs a proxy to observe it. According to Modigliani and Miller (1958) that on a perfect market condition there is no relation between investment decision and funding decision, in this case there is a relation between liquidity rate and investment rate in many corporations. Fazzari, Hubbard, and Petersen (1988); Vogt (1994); Kaplan and Zingales (1997); Cleary (1999); Moyen (2004); Almeida, Campello, and Weisbach (2004)'s empirical study shows there is a connection between liquidity and investment decision on US corporations. The same thing was also found by Hoshi, Kashyap, and Scharfstein (1991) in Japan.

Empirical study in Indonesia shown by Agung (2000), Kristianti (2003), and Hermeindito (2004) that found that liquidity positively relates to investment. Instead, Prasetyantoko (2007) in his research shows that liquidity negatively relates to investment decision.

From the above empirical finding result, it shows that there is a difference between theory stating that investment decision and funding decision are independent from any practices done by corporation. Beside that, research result from Fazzari, Hubbard, and Petersen (1988); Vogt (1994); Hoshi, Kashyap, and Scharfstein (1991); Hermeindito (2004) shows that there is a different

sensitivity finding of corporate investment decision and liquidity when it is moderated by *financial constraints*. With research result from Kaplan and Zingales (1997); Cleary (1999); Kristianti (2003).

Fazzari, Hubbard, and Petersen (1988); Vogt (1994); Hoshi, Kashyap, and Scharfstein (1991); Hermeindito (2004)'s research shows that corporate investment decision is more sensitive on liquidity on *financially constrained* corporation that is further abbreviated as *FC*, compared by non *financially constrained* corporation that is further abbreviated as *NFC*. Instead, Kaplan and Zingales (1997); Cleary (1999); Kristianti (2003) found that corporate investment decision is more sensitive on liquidity on *NFC* corporation than *FC* corporation.

By the existing empirical evidences among Fazzari, Hubbard, and Petersen (1988) supported by oleh Vogt (1994); Hoshi, Kashyap, and Scharfstein (1991); Hermeindito (2004) with empirical research result from Kaplan dan Zingales (1997) supported by Cleary (1999) and Kristianti (2003), this research will further observe factors that differentiate the two different evidences, which by using *FC* and *NFC* variables as the moderator.

Financial constraints is a corporate limitation in earning capital from any available funding sources to invest. Kaplan and Zingales (1997) stated that *financial constraints* occur if corporation faces difference between capital cost from internal funding source and capital cost from external funding source.

Based on the above explanation and result of empirical research, then this research is intended to examine liquidity influence rate and investment opportunity on investment decision on *FC* and *NFC* corporation. *FC* Corporation is a corporation that has financial problem in having investment, while *NFC* Corporation is a corporation that has no financial problem in having investment.

Corporate investment decision is really influenced by investment opportunity, because the more investment opportunity that is profitable, the higher investment is done, in term of manager trying to grab the opportunities to maximize the stockholders' prosperity. If there is an investment opportunity that is profitable, then the *NFC* Corporation will easily take it to invest. It is caused by the *NFC* corporation has an easier access to the capital market, so that it can easily adjust its finance to investment that shows higher financial flexibility, or in other words the *NFC* corporation shows higher corporate value (Bhaddari, 1988; Chan and Chen, 1991; Fama and French, 1992). The *NFC* also tends to be longer, bigger, more mature, and understand market very well. It means that with the well-established corporate condition, then the *NFC* corporation is tends to be sensitive in doing investment on the investment opportunity.

According to Fazzari, Hubbard, and Petersen (1988); Vogt (1994); Kaplan and Zingales (1997); Cleary (1999); Moyon (2004); Almeida, Campello, and Weisbach (2004); Hoshi, Kashyap, and Scharfstein (1991); Agung (2000), Kristianti (2003), Hermeindito (2004); Prasetyantoko

(2007), corporate investment decision can also consider the availability of internal funding source which is cash flow. Investment decision made by corporation is influenced by the ability of the corporation to make cash that is able to fulfill both of long-term and short-term need or what is usually called as corporate liquidity. Corporation should keep the liquidity to avoid any disturbance, so it doesn't disturb the corporate activity process to invest and not to lose any trust from external party.

FC corporation tends to use liquidity to finance investment. It is caused by the *FC* corporation has a limited access to capital market and is relatively smaller, that shows financial constraints so it would be harder for the corporation to take the investment opportunity that is profitable to have investment. In other words, *FC* corporation has a lower corporate value.

According to Fazzari, Hubbard, and Petersen (1988) that the existing information asymmetric on the external funding (debt) will evoke more expensive external funding, that impacts *FC* corporation has less access to external funding. With the constraints, then the investment decision of *FC* corporation tends to be more sensitive on liquidity.

As mentioned above, there is a different result in term of liquidity influence rate on the investment decision when being moderated by *financial constraints*, especially research done by Kristianti (2003) and Hermeindito (2004) in Indonesia. Kristianti's research (2003) support thr Kaplan's and finding (1997) and Cleary (1999) that shows that liquidity is more influential on the investment decision on *NFC* corporation that *FC* corporation.

Instead, result of Hermeindito's research (2004) supports Fazzari's, Hubbard's, and Petersen's research (1998); Vogt (1994); Hoshi, Kashyap, and Scharfstein (1991) that shows that liquidity is more influential on investment decision on *FC* corporation than *NFC* corporation. According to those different research result, then this research is intended to do reconciliation for liquidity influence rate and investment opportunity on investment decision by putting in variable of *FC* and *NFC* as moderator.

The second part of this paper will discuss the theory and the derivation of 4 hypothesis tested in this paper, the third part discusses about methodology used and the forth part will explain the estimation and analysis result. Conclusion, implication, and suggestion will be the closure.

II. THEORY

There are three aspects that become analysis focus as an influencing factor of investment decision. Those aspects are: (i) liquidity aspect, (ii) investment opportunity, and (iii) financial

constraint aspect. According to Modigliani and Miller (1985) that in a perfect market condition, there is no relation between investment decision and funding decision. However the empirical evidence shows the existing interdependency between investment decision and funding decision, in this case there is a connection between liquidity rate and investment rate in many corporations.

The investment decision made by corporation is influenced by the ability of corporation in making cash that is able to fulfill the long-term and short-term need or what is commonly called as corporate liquidity. Corporation should keep its liquidity to avoid any disturbance on the corporate activity process to have investment and not to lose any trust from the external party.

Liquidity is an ability of a corporation to fulfill its obligation especially short-term obligation (Hanafi and Halim, 2005). According to Riyanto (1997), liquidating corporation is a corporation that has a big power so it is able to fulfill any of its obligation, this paying ability relates to production process establishment.

According to Zaplan and Zingales (1997), liquidity is an ability of a corporation to make cash in fulfilling both of long-term and short-term corporate's need. The definition explicitly shows whether with the available cash corporate experiences obstacle in finance its investment or not. A corporation is called having no problem in financing its investment only if the corporation can make cash to finance its investment.

In this research, liquidity gets proxy by *cash flow*. Cash flow usually consists of cash flow in and cash flow out. Cash flow out is usually used to have a new investment, meanwhile cash flow in is the result from the investment. According to Brigham and Ehrhardt (2005), cash flow report is a report explaining the impact of operational activities, investment, and corporate funding on cash flow in one accounting period.

Geczy, Minton, and Schrand (1997) stated that corporate cash flow with high volatile level has expenditure, research cost, and development, and advertisement cost that are cheaper. It means that the existing investment level difference will make a different volatility, depends on the corporate investment goal. Corporation doesn't usually debt or equity market to make cash flow volatility not sharp, because the cost getting in the capital market also relates to corporate cash flow volatility.

The Fazzari, Hubbard, and Petersen (1988); Vogt (1994); Kaplan and Zingales (1997); Cleary (1999); Moyon (2004); Almeida, Campello, and Weisbach (2004)'s research show that there is a correlation between liquidity and investment decision in the US corporations. The same thing was also found by Hoshi, Kashyap, and Scharfstein (1991) in Japan.

Empirical study in Indonesia shown by Agung (2000), Kristianti (2003), and Hermeindito (2004) that found liquidity is positively correlated to investment decision. Instead, Prasetyantoko

(2007) in his research shows that liquidity is negatively related to investment decision. Based on the explanation, then the first hypothesis tested in this paper is the liquidity is positively related to investment decision.

Myers (1977) stated that investment opportunity is a combination between assets in place and investment choice in the future with positive NPV. The *assets in place* affiliation with the investment will be influential on capital structure. Gaver and Gaver (1993) stated that investment opportunity is a corporate value which its amount depends on expenditures determined by management in the future, in this case the expected investment choices will make a higher *return*.

According to Chung and Charoenwong (1991) that growth essential for a corporation is the existing investment opportunity that is more profitable. If there is a profitable investment opportunity, then manager will try to take the opportunities to maximize the prosperity of stockholders. It is caused by the more investment that is profitable, then investment done will be higher.

In this research, proxy from investment opportunity is *book to market* ratio. *Book to market ratio* is a book value ratio towards stock price. Corporation that has a *book to market* ratio that is high indicates that corporate growth cycle will be better in the future, so that it will have a high investment opportunity, thus corporation can easily invest because investors will be interested to buy the corporate's stock.

The Fazzari, Hubbard, and Petersen (1988); Vogt (1994); Kaplan and Zingales (1997); Cleary (1999); Almeida, Campello, and Weisbach (2004); Prasetyantoko (2007)'s research shows that investment opportunity is positively influential on the investment decision. Instead, Moya research (2004) shows that investment opportunity is negatively influential on the investment decision. Thus, the *second* hypothesis proposed in this research is investment opportunity with that is positively influential on investment decision.

According to Myers and Majluf (1984) that central proportion with capital information asymmetric base is very expensive. Myers and Majluf (1984) further explained that dividend is *sticky*, which means dividend increase is done if manager is sure to allocate a permanent cash flow (both of internal and external) that is sufficient in the future. Dividend decrease is done if corporation faces high *financial constraints*, externally it can not keep the permanent cash flow that is sufficient to finance investment. That is why *FC* corporation relies much on internal funding source, it tends to adjust dividend based on the available investment opportunity.

According to Jansen and Meckling (1976) that manager excitedly use internal capital to finance its investment because internal capital can reduce the supervisor involvement from

stockholders or external party on the investment decision made by manager Fazzari, Hubbard, and Petersen (1988) stated that *FC* corporation tends to be more sensitive towards internal funding (liquidity) in having investment. The tendency is caused by the existing information asymmetric on the external funding, so the external funding (debt) is more expensive than internal funding impacting on less access belongs to *FC* corporation to external funding source.

The Fazzari, Hubbart, and Petersen (1988); Hoshi, Kashyap, and Scharfstein (1991); Schaller (1993); Almeida, Campello, and Weisbach (2004)'s research shows that *FC* corporate investment decision is more sensitive towards liquidity compared by *NFC* corporation. Instead, Kaplan and Zingales (1997) and Clary (1999)'s research shows that investment from *NFC* corporation is more sensitive towards liquidity compared by *FC* corporate investment.

Moyen's research (2004) shows when using classification based on dividend *pay out*, *cash flow*, and Fazzari, Hubbard, and Petersen criteria, *FC* corporation is more sensitive towards liquidity compared by *NFC* corporation in having investment. Instead, when using Cleary index and Kaplan and Zingales criteria, it is found that *NFC* corporation is more sensitive towards *cash flow* compared by *FC* in having investment.

Empirical evidence in Indonesia is shown by Agung (2000) that found the existing liquidity positive relation with investment decision. Kristianti (2002) in her research shows that liquidity is more sensitive towards investment decision on *NFC* corporation compared by *FC* corporation. Instead, Hermeindito (2004) found that liquidity is more sensitive towards investment decision on *FC* corporation than on *NFC* corporation. Prasetyantoko (2007) also showed that liquidity is negatively influential on investment. Referring to this explanation, then the third hypothesis tested in that liquidity is more influential towards investment decision on *financially constrained* corporation than non *financially constrained* corporation.

According to Jensen and Meckling (1976) that dividend policy and investment opportunity is a management controlling mechanism that can be substitution which its application is depending on the availability of internal funding source than external funding source through investment opportunity. A corporation that has a high internal funding source is controlled through high dividend payment so that the corporation can be classified as *NFC*. Thus *NFC* corporation can easily adjust funding source for investment that shows higher financial flexibility and tends to have an easy access to external capital market, or in other words *NFC* corporation shows higher result (Bhaddari, 1988; Chan and Chen, 1991; Fama and French, 1992).

Prasetyantoko(2007) in his research shows that investment opportunity is positively influential on investment decision. Kaplan and Zingales (1997); Cleary (1999) found that investment decision of *NFC* corporation is more sensitive on investment opportunity than on

FC corporation. Instead, Moyer (2004) found that generally, investment opportunity is negatively influential on investment on both *NFC* and *FC* corporation. Almeida, Campello, and Weisbach (2004) shows that investment opportunity is more sensitive on *FC* corporation than on *NFC* corporation. With the assumption, then hypothesis which explains investment opportunity is more influential on investment decision on *non financially constrained* corporation than *financially constrained* corporation, is the forth hypothesis tested in this paper.

III. METHODOLOGY

III.1. Data and Variable Conceptualization

Data needed in this research is corporate financial statement from 2003 to 2007. Population in this research is public corporation listed in Indonesian Stock Exchange (BEI) and the research sample is non financial public corporation listed in Indonesian Stock Exchange (BEI). Data is obtained from BEI and ICMD (*Indonesian Capital Market Directory*). Sample distribution criteria in this research is non financial corporation listed in BEI that publish its financial statement from 2003 to 2007 consistently.

Independent variable in this research is liquidity that gets proxy with *cash flow* and investment opportunity that gets proxy with *book to market*. To measure *cash flow* and *book to market*, it is described as follow:

$$\text{Cash flow} = \frac{\text{netincome} + \text{depreciation and / or amortization} + \text{tax payment difference that is being delayed}}{\text{fixed aset}}$$

Fixed assets in this research is land, building, equipment, and supply. *Cash flow* is divided with fixed assets to control corporate scale difference effect.

$$\text{Book to market} = \frac{\text{equity book value}}{\text{equity market value}}$$

Dependent variable in this research is investment. Investment in this research is *net capital expenditure* and is accumulated during period t, formulized as follow:

$$\text{Investasi} = \frac{(\text{fixed assets}_t - \text{fixed assets}_{t-1})}{\text{fixed assets}}$$

Moderation variable in this research is financial constrained that is classified into two parts, *non financially constrained (NFC)* dan *financially constrained (FC)*. In this research, to

classify *NFC* corporation and *FC* corporation, it uses four steps by observing dividend policy, cash flow, debt (*leverage*), and investment opportunity. The first classification is based on dividend policy. Some of research use dividend payment ratio from (Fazzari, Hubbard, and Petersen, 1988; Vogt, 1994; Kaplan and Zingales, 1997; Cleary, 1999; Kristianti, 2003; Moyer, 2004; Almeida, Campello, and Weisbach, 2004; Hermeindito, 2004). Corporation with low dividend rate is categorized as *FC* corporation, while high dividend rate corporation is categorized as *NFC*. Fazzari, Hubbard, and Petersen (1988) stated that there are two possible explanations why corporation pays low dividend. First, corporation is facing external funding source cost that is more expensive because the existing information asymmetric so it uses most of profit to finance its investment than paying higher dividend. Second, corporation doesn't earn sufficient profit to pay dividend. Corporation paying dividend is categorized as *NFC*, and corporation that is not paying dividend is categorized as *FC*.

Corporation that is categorized as *FC* that can not pay the dividend doesn't mean that they have no ability to do that, but there might be other needs such as having investment, so that it needs a second classification which is by considering cash flow. On the second classification as used by Moyer (2004), corporation that has a higher bigger cash flow from the cash flow average of all samples is categorized as *NFC*, while corporation that has a smaller cash flow from the cash flow average of all samples is categorized as *FC*. Corporation with the big cash flow tends not to have a problem funding, instead corporation with the smaller cash flow tends to have obstacles in its funding.

To maximize *NFC* and *FC* accurate corporate classification result, corporation that categorized as *financially constrained* on the second classification is continued to the third classification which is by looking the investment opportunity that belongs to the corporation. Investment opportunity here gets proxy with *book to market* ratio as used by Hovakimian and Titman (2006) in classifying *NFC* and *FC* corporation. A corporation is categorized as *NFC* if its *book to market* ratio is lower than the average of *book to market* ratio of all samples and a corporation is categorized as *FC* if its *book to market* ratio is higher than the average of all samples. A corporation with a low *book to market* means that the corporation has a lower book value than its market value, or in other words, the corporation has a higher market value than its book value that reflects *NFC* corporation. Thus *NFC* corporations can easily get external funding source because it has a high security value than its book value, so that investors are interested to buy the corporate's security.

Furthermore, to ensure and to get more accurate result in classifying *NFC* and *FC* corporations, the *financially constrained* corporations on the third classification is continued to the forth classification as done by Lang, Ofek, and Stulz (1996); Hovakimian and Titman

(2006) by observing a corporate's debt. A corporation with a high debt rate tends to hard to get access to any external funding source and instead, a corporation a low debt rate tends to easily access the external funding source. Therefore in this research, a corporation with low debt ratio of all samples then is categorized as *NFC*, while corporation with a higher debt ratio than the average of all samples debt ratio then is categorized as *FC* corporation. From those four steps, it can be clearly seen on Figure 1.

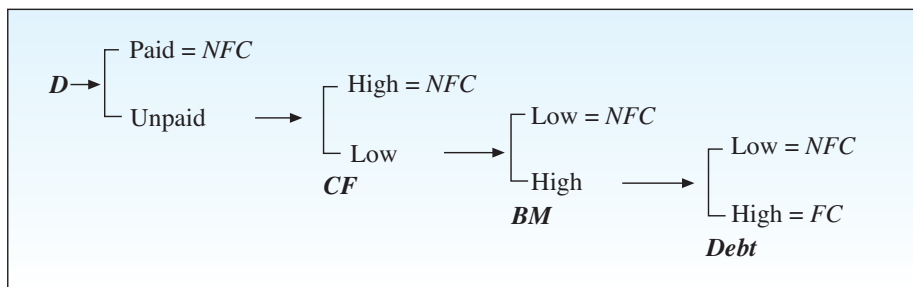


Figure III.1.
Financially Constrained and Non Financially Constrained corporate classification

In this case, *D* is dividend; *CF* is cash flow; *BM* is book to market ratio from investment opportunity; *Debt* is borrowed fund; *NFC* is non financially constrained; and *FC* is financially constrained.

Thus corporation categorized as *NFC* is when the corporation pays dividend, has a high cash flow, low *book to market*, and low debt. Meanwhile, corporation is classified as *FC* if it doesn't pay dividend, has a low cash flow, high *book to market*, and high debt. This research also uses controlling variable which is debt (*leverage*) measured by:

$$DER = \frac{\text{Total of Debt}}{\text{Total of Equity}}$$

III.2. Estimation Technique

Empirical model stated in this paper is:

$$INVAT_{it} = \beta_0 + \beta_1 CFAT_{it} + \beta_2 BM_{it} + \beta_3 D_{it} + \beta_4 CFAT_{it} * D_{it} + \beta_5 BM_{it} * D_{it} + \beta_6 DER_{it} + u_{it}$$

Where *INVAT* is investment on *capital expenditure* that divided by fixed assets, which is dependent variable; *CFAT* is *cash flow* divided by fixed assets which is proxy from liquidity and *BM* (*Book to market*) which is a proxy from investment opportunity is dependent variable; *D* is dummy *FC* and *NFC* corporate variable, 1 is *FC* variable and 0 is *NFC* variable; *CFAT*D* is interaction between

CFAT with dummy variable and *BM*D* is interaction between *BM* and dummy variable which is moderation variable; and *DER* (*debt to equity ratio*) is controlling variable. Cash flow and investment are divided by fixed assets to control corporate scale different effect. Index *i* which shows *i* and *t* corporation is period.

IV. RESULT AND ANALYSIS

According to sample distribution criteria which is non financial corporation listed in Indonesian Stock Exchange and publish its financial statement from 2003 to 2007 consistently, obtained sample amounting 217 non financial corporation during five years with the number of observation amounting 1.085. From the 217 samples, there are 57 corporations with insufficient data because there is no tax data that is delayed and 24 corporations with *outlier* data because it has a cash flow, book to market, equity, and negative investment value so that they are taken out from the sample. So this last research result is 136 non financial corporations during five years with the number of observation amounting 680. Table III.1 shows samples distribution process.

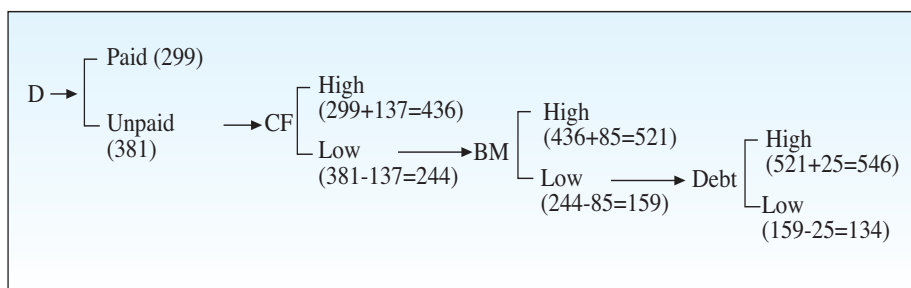
| Criteria | Number of Corporation |
|---|-----------------------|
| 1. Non Financial Corporation listed in Indonesian Stock Exchange and publish its financial statement consistently during 2003-2007 period | 217 |
| 2. Taken out because of insufficiency *) | (57) |
| 3. Taken out because the data is outlier **) | 160 |
| Last Sample | (24) |
| | 136 |

Note:

*) no delayed tax

***) cash flow, book to market, equity, and negative investment value

In this paper, to classify corporation categorized as *FC* and *NFC*, it is seen from dividend, *cash flow*, *book to market*, and *debt*. Corporation categorized as *FC* is when corporation doesn't pay dividend, has lower cash flow than the sample average, and has a higher book to market and debt than sample average. Meanwhile, a corporation categorized as *NFC* is when corporation pays dividend, has a higher cash flow than the sample average, and has lower *book to market* and *debt* than the sample average. The *FC* and *NFC* corporation in this research are moderation variable using *dummy*, which are: 1 is for *FC* corporation and 0 is for *NFC* corporation. Classification result categorized as *FC* and *NFC* can be seen on Figure 2.



Gambar III.2.

Classification result of Financially Constrained and Non Financially Constrained corporations

The picture shows the first classification observed from dividend payment status; there are 299 corporations paying dividend and 381 that don't pay dividend. On the second classification, corporations that don't pay dividend are further classified as based its *cash flow* condition; on this step it shows that corporation that has higher cash flow than the sample average increases from 137 to 436 and the one that smaller than the average decreases from 137 to 244 corporations. On the third classification, a corporation with low cash flow is re-observed its *book to market*, classification results shows, the number of corporations with lower *book to market* from the sample average increases from 85 to 521 corporations, meanwhile corporations that have higher book to market from the average decreases from 85 to 159 corporations. On the last classification corporation with high *book to market* is re-observed its *debt*, classification results show that corporation with lower *debt* than the sample average increases from 25 to 564 and corporations with debt above the sample average decreases from 25 to 134 corporations, while corporations categorized as *NFC* are 564.

From the above classification, to know the difference between *FC* and *NFC* corporations, it uses difference test with *independent sample t-test*. The result of *FC* and *NFC* difference test can be seen on the table III.2 below.

| Table III.2 Corporate Financially Constrained and Non Financially Constrained difference test result | | | | |
|---|---------|----------|-----------------|------------|
| Variable | Mean FC | Mean NFC | Mean Difference | t value |
| CFAT | 0.8154 | 1.1976 | -0.3822 | -4.867 *** |
| BM | 6.6650 | 3.8180 | 2.8470 | 12.639 *** |
| DER | 0.7097 | 0.4154 | 0.2943 | 12.555 *** |

Source: data managed

Note :

*** Significant on level 1% (2,326)

CFAT (cash flow divided by fixed assets), BM book value equity divided by market value equity) in multiplication, DER (debt total divided by equity total) in percent.

Difference test result on table III.2 shows that there is different average between FC and NFC corporations on all CFAT, BM, and DER variables. Negative coefficient symbol on CFAT shows that NFC corporate cash flow is higher than FC corporations, meanwhile positive BM and DER variables which means that book to market and debt of FC corporation is higher than NFC corporation.

Model estimation result is given on table III.3. This model has passed the classical assumption (Gujarati, 2003) including normality test, autocorrelation test, multicollinearity test, and heteroscedasticity. Data normality test uses non parametric statistical test from Kolmogorov-Smirnov (K-S) amounting 1,313 and significance amounting 0,064. It shows residual data is normally distributed (Ghozali, 2001).

Autocorrelation test is done by using statistical Durbin Watson (DW). With the number of observation 680 and independent variables which is 6, it gets d1 value amounting 1,707 and du amounting 1,831. The autocorrelation test shows DW value amounting 1,857 which is between du and 4-du, then there is no autocorrelation in this model.

Multicollinearity test is done by observing VIF value, if VIF value is closed to 1 then there will be no multicollinearity on regression equation. Multicollinearity shows that VIF value CFAT variable (1,069), BM (1,156), and DER (1,250) are closed to 1, meanwhile VIF value D variable (5,344), CFAT*D (2,653), and BM*D (3,939) is bigger than 1 but still in a normal limit, so that overall, it can be said that there is no correlation among independent variables.

| Independent Variable | Coefficient | t value |
|-----------------------------|--------------------|-------------------|
| Constant | 0.049 | 9,102 *** |
| CFAT | 0.018 | 8,796 *** |
| BM | 0.001 | 1,981 ** |
| D | -0.026 | -2,496 *** |
| CFAT*D | 0.011 | 1,759 ** |
| BM*D | -0.014 | -3,143 *** |
| DER | 0.027 | 3,668 *** |
| R ² | 0.131 | |

Note :

Estimation is done by using data panel estimation technique; fixed effect model (FEM).

***) Significant on level 5% (1.645) and

***) Significant on the level 1% (2.326).

CFAT (Cash flow divided by fixed assets) is proxy from liquidity and BM (equity book value divided by equity market value) is proxy and investment opportunity which is independent variable ; D(dummy variable, 1 for financially constrained corporation, 0 for non financially constrained corporation); CFAT*D (interaction between CFAT and dummy of financially constraint corporation) and BM*D (interaction between BM and dummy of non financially constrained corporation) which is moderation variable; and DER (debt total divided by equity total) is controlling variable.

The last classical assumption test is the heteroscedastisity done by Park test. From the Park test, it obtained a significance result CFAT variable (0,193), BM (0,864), D (0,481), CFAT*D (0,377), BM*D (0,254), and DER (0,866) which means it bigger than 0.05, so that in this model there is no heteroscedastisity that guarantees parameter obtained is the most efficient parameter.

It shows that the 4 proposed hypothesis in this paper are supported by estimation result. The research result shows that hypothesis 1 and 4 are significant on level 1% which in this case CFAT variable has a postive coefficient, meanwhile moderation variable BM*D which is interaction between BM and dummy NFC corporation has a negative coefficient. For hypothesis 2 and 3, BM variables and moderation variables CFAT*D which is interaction between CFAT and dummy of FC corporation has a positive coefficient and is significant on level 5%.

Nevertheless, it should be underlined thatdetermination coefficient (R^2) of model is relatively small amounting 0,131 that shows 13,1 % investment decision variation can be explained by variation from six independent variables CFAT, BM, D, CFAT*D, BM*D, and DER. And the rest (86,9%) is explained by other causes beyond model.

With high liquidity, corporation has an opportunity to invest higher on capital expenditure which is investment on fixed assets such as land or property, building, and supply. Nevertheless, with the high liquidity, it will be sensitive to *agent conflict occurs*. According to this theory, manager is excited to use internal capital to finance investment because internal capital can minimize the stockholders' supervision involvement or external party on investment decision made by manager. Manager tends to choose project that is harder to be supervised by external party, so it gives *more space* for manager to take a decision that benefit him. Manager is also excited to *keep free cash flows* than sharing it to the stockholders. The more *free cash flows* are, the more managers' freedom in controlling corporate resources.

Beside that, according to Myers and Majluf (1984) that the existing information asymmetric, then internal funding source is cheaper than external funding source like debt, so that the corporation tends to choose internal funding rather than external funding. The result of this research is in accordance with Fazzari, Hubbard, and Petersen (1988); Hoshi, Kashyap, and Scharfstein (1991); Vogt (1994); Kaplan and Zingales (1997); Cleary (1999); Agung (2000); Kristianti (2003); Moyen (2004); Almeida, Campello, and Weisbach (2004); and Hermeindito (2004)'s research. By this research, it shows that there is interdependency between investment decision and funding decision.

Corporate investment decision is closely related to investment opportunity belongs to a corporation. The result of hypothesis 2 in this research supports the statement, in this case that there is a positive investment opportunity influence on investment decision. This research is in

accordance with Fazzari, Hubbard, and Petersen (1988); Vogt (1994); Kaplan and Zingales (1997); Cleary (1999); Almeida, Campello, and Weisbach (2004); and Prasetyantoko (2007)'s research. According to Gaver and Gaver (1993), investment opportunity is a corporate value with amount depending on expenditures determined by manager in the future, in this case investment choices expected to make a higher profit. If there is a profitable investment opportunity, then manager will try to take those opportunities to maximize the stockholders' prosperity. The more profitable investment opportunity is, the more investment done by a corporation.

Liquidity influence and investment opportunity on investment decision will be different when being moderated by *FC* and *NFC* corporations. It is shown by hypothesis 3 and 4. The result of hypothesis 3 shows that liquidity is more influential on investment decision on *FC* corporation than on *NFC* corporation. According to Fazzari, Hubbard, and Petersen (1988), because the existing information asymmetric on external funding, so that external funding like debt is more expensive impacting *FC* corporation has less access to external funding source. Beside that, *FC* corporation is relatively small, that shows financial limit so that it will be hard for corporation to take investment opportunity that is profitable for investment. In other words, *FC* corporation has a low corporate value. Thus, *FC* corporation tends to be more sensitive on liquidity in having investment. The result of this research is in accordance with Fazzari, Hubbard, and Petersen (1988); Hoshi, Kashyap, and Scharfstein (1991); Schaller (1993); Almeida, Campello, and Weisbach (2004); and Hermeindito (2004)'s research.

Instead, the result of hypothesis 4 shows that investment opportunity is more influential on investment decision on *NFC* corporation than on *FC* corporation. The result of this research is in accordance with Kaplan and Zingales (1997); Cleary (1999); Kristianti (2003)'s research. According to Jensen and Meckling (1976) that dividend policy and investment opportunity is a management controlling mechanism that can be substitution more depends on its application from the availability of internal funding source than external funding source through investment opportunity.

A corporation that has a high internal funding source is controlled through high dividend payment so that the corporation can be classified as *NFC*. Thus *NFC* corporation can easily adjust its funding source to have investment that shows bigger financial flexibility and tends to have easier access to external capital market. In other words, *NFC* corporation shows a high corporate value (Bhaddari, 1988; Chan and Chen, 1991; Fama and French, 1992). It means that *NFC* corporation is more sensitive towards investment opportunity in having investment.

V. CONCLUSION

From hypothesis test, then the conclusion from this research are explained as follow:

1. That liquidity is positively influential on investment decision. This influence shows that by a high liquidity, a corporation can have a higher investment opportunity on capital expenditure which is investment on fixed assets such as property, building, and supply.
2. That investment opportunity is positively influential on investment decision. If there is a profitable investment opportunity, then manager will try to take those opportunities to maximize stockholders' prosperity which means increasing corporate value. Thus, the more profitable investment is, the more investment will be done.
3. That liquidity is more influential on investment decision on *FC* corporation than *NFC* corporation. It is caused by the existing information asymmetric on external funding, so that external funding like debt is more expensive from internal funding impacting on *FC* corporation has less access to external funding source. It shows that investment decision of *FC* corporation is more sensitive on liquidity.
4. That investment opportunity is more influential towards investment decision on *NFC* corporation than on *FC* corporation. It because *NFC* corporation tends to have an easy access to external capital market so that it can easily adjust its funding sources to have investment that shows bigger financial flexibility. It means that *NFC* corporation is more sensitive towards investment opportunity in having investment.

This research shows the existing positive influence of liquidity towards investment opportunity, or in other words there is an interdependency among funding decisions which is liquidity with investment decision on Indonesian corporations especially corporation that become sample. Corporate investment decision is closed to investment opportunity. The result of this research supports the statement, that there is a positive influence of investment opportunity towards investment decision on Indonesian corporations especially corporations that become samples.

When liquidity influence and investment opportunity on investment decision are put into *FC* and *NFC* variable as moderation variable , then the result of the research shows that liquidity is more influential on investment opportunity on *FC* corporation than on *NFC* corporation. The implication is *FC* corporation will use liquidity to have investment. This result also shows that investment opportunity is more influential towards investment decision on *NFC* corporation than on *FC* corporation. If there is a profitable investment opportunity, then *NFC* corporation will take those opportunities to have investment. It is because *NFC* corporation has easier access to external funding corporation because it has a bigger financial flexibility, more expert, and longer. Thus, in having investment *NFC* corporation tends to be more sensitive on investment opportunity.

It should be underlined that this research has a limitation which is a development space for further research. The first thing is the number of limited samples, which is 136 non financial corporation during 5 years from 2003-2007 with the 680 observations. For the next research can add samples with a longer period. Second, many samples don't contain tax accounting value that is delayed in cash flow accumulation, so that many data are taken out. The future research should use cash flow proxy in other calculation. Beside that, the small sample number is also caused by the existing *outlier* data because it has a *cash flow*, *book to market*, *equity*, and *negative* investment value. Third, this research just uses two independent variables which are liquidity and investment opportunity. The future needs to add other independent variables that are relevant such as debt, so that it can be compared between internal funding source and external funding source moderated by *FC* and *NFC* corporation. Forth, sample is pooled so that one corporation categorized as *FC* corporation in this year can become an *NFC* corporation in next years. It should make a *Robustness test*, by *hold-out sample* way. The thing tested is just samples which in five or three years orderly are in the category.

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