

## **Guidelines**

As a guide, papers must be between 4,000 and 4,500 words in length and must be contained within 20-25 pages including tables and references. A title of not more than fifteen words should be provided. All papers must include an Abstract and conform to the following generic format: introduction, literature review, methodology, findings/discussion, conclusion/implications and references.

Please use the checklist provided below to ensure that your paper meets the requirements prior to publication. In case of noncompliance to these guidelines, your paper will be excluded from being published.

Please send us your paper in word format, not PDF files.

Papers must be written in A4 paper size. (21cm x 29.7 cm) and the automatic margins that have been set for this paper size must be strictly adhered to for all text, headings, tables and figures.
Title of the paper is no more than 15 words, centred and in 16pt font.
Author(s) name(s) appear below paper title in 14pt font and centred
Leave two empty lines before and after the name(s) of the author(s)
All text in Arial provided
Section/sub-titles are in numbered sequentially, in bold and 14pt font
Leave one empty line before and after each section/sub-title
Line spacing throughout paper is single-spaced (no double spacing please)
Abstract is in italics and justified both with 2.5 inch margin on both sides
Field of Research is indicated after Abstract. Leave two empty lines after Field.
All text is in 12pt font except sub-titles
Author(s) affiliation, address and email is provided at the bottom of the first page in 10pt font
Figures, tables and charts are included within the body of the paper
Figures, text or tables are not coloured or shaded
Tables or figures do not break across two pages
All text is justified
Double space between two paragraphs are provided
No table provided in introduction, within conclusion and just after conclusion
All tables are provided within the margin and titles of the tables are centred
No space left at the beginning of the sentence of the new paragraph

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Table 12

Comparison of Panel Data Test Results Are Using Ordinary Least Square and Fixed Effect Method of Financially Constrained Firms and Old Category

Koefisien	Ordinary Least Square Method	Fixed Effect Method	The best Criteria
R-squared	0,2427	0,3226	Fixed effect Method
Adjusted R-squared	0,1726	0,1673	Fixed effect Method
Durbin-Watson stat	2,2069	2,0429	Durbin watson > 2
Sum of Square Residual	5,7095	4,5482	Fixed effect Method
Significant Variables	RGI	CFF, RGI	Fixed effect Method

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**Table 10**  
**Ages of Financially Constrained Firms**

Companies	Ages	Categories
1	26	Young
2	43	Old
3	21	Young
4	34	Old
5	28	Young
6	37	Old
7	35	Old
8	24	Young
9	49	Old
10	38	Old
Average	33,5	

**Table 11**  
**Comparison of Panel Data Test Results Are Using Ordinary Least Square, and Fixed Effect Method of Financially Constrained Firms and Young Category**

Koefisien	Ordinary Least Square Method	Fixed Effect Method	The best Criteria
R-squared	0.4203	0,5058	Fixed effect Method
Adjusted R-squared	0.3351	0,3576	Fixed effect Method
Durbin-Watson stat	2.1241	2.2715	Durbin watson > 2
Sum of Square Residual	1,6585	1,5492	Fixed effect Method
Significant Variables	STD, RGI	CFO, STD, RGI	Fixed effect Method

Appendix

Table 7 Summary Statistic

Variables	Financially Constrained Firms	The Whole Company
Average CX	0,069929815	0,105478943
Average CFO	0,206364046	0,350123808
Average CFI	-0,076740793	-0,122809574
Average CFF	0,133808127	0,081272618
Average STD	0,209005055	0,205123757
Average PROF	0,124567649	0,094378615
RGI	6 times to do the right issue during 2002 - 2011	8 times to do the right issue during 2002 - 2011

Table 8

Comparison of Panel Data Test Results Are By Using Ordinary Least Square , Fixed Effect , and Random Effects Method in Financially Constrained Firms

Koefisien	Ordinary Least Square Method	Fixed Effect Method	Random Effect Method	The best Criteria
R-squared	0.087462	0.195168	0.094987	Fixed effect Method
Adjusted R-squared	0.038923	0.051448	0.036599	Fixed effect Method
Durbin-Watson stat	2.243659	2.144529	2.241091	Durbin watson > 2
Sum of Square Residual	9.606699	8.224424	9.527476	Fixed effect Method
Significant Variables	STD, RGI	CFI, CFF, STD	RGI	Fixed effect Method

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their track records. The above results proved that the old company although experiencing financial constraints, is still able to seek funding from the activities of a rights issue to finance its capital expenditures. This means such companies are still trusted by the investor for their long-establishment so that investors already know their track records.

## **5. Summary and Conclusions**

This study has shown that cash flow from investing and financing activities and growth of short-term debt affects the capital expenditures of financially constrained firms. This study proves that capital expenditures is funded by short-term debt, so financially constrained firms need to maintain good relationship with the bank, the parties have a special relationship and third parties. The financially constrained firms have higher level of profitability than the industry average, but this study proves that cash flow from operating activities is not used to fund capital expenditures, but it is used for the other activity such as to fund the company's daily activities. Companies need to manage their operations efficiently, so they can generate sufficient cash flow from operating activities, which it can be used to fund the daily operations and capital expenditures.

The factors shown that affect the company's capital expenditures of financially constrained firms and young category are cash flow from operating activities, the growth of short-term debt and rights issues. This study proves that a young and company experiencing financial constraints does not use rights issue to fund capital expenditures, but for other activities such as paying obligations which have matured.

The factors shown to affect the company's capital expenditures of financially constrained firms and older category are cash flow from financing activities and rights issues. While the old company experiencing financial constraints use rights issue to fund capital expenditures. This indicates that the old company is experiencing financial constraints still has a good reputation and trust of investors.

## **Endnotes**

- 1) Sample selection at manufacturing companies in particular food and beverages companies because financial ratios are used to categorize companies into financially and non financially constrained firms more suitable to be applied to manufacturing companies compared to banks or other financial institutions.
- 2) This study uses panel data test to prove the hypothesis because the data being analyzed is a combination of cross section and time series. Panel data test is produced three methods: ordinary least square, fixed effect and random effect methods so can be chosen which method gives the best results than when using regression test, only produces one output.

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Companies with a young age tend to be companies that are still growing, and trying to enlarge their capacity. This evidence suggests that even though a young company is experiencing financial constraints, it can manage their operational activities well so that the cash flow of activities is sufficient to fund the company's daily activities and to fund capital expenditures of the company. The above result supports the first hypothesis : cash flow has a positive effect on capital expenditures.

Growth of short-term debt has a positive effect on capital expenditures with a significant p value  $0.0004 < 5\%$ . Financially constrained firms have limited access to external financing. Funding may still be accessed by a company of this type is the short-term debt related to the trust from the creditors regarding the payment (Pal & Kozan, 2006). While the young company is a company that is still growing so it has a high investment opportunity. According to Barclay and Smith (1999), companies that have short-term debt in large numbers, have greater growth options in their investment opportunity. The above result supports the second hypothesis : short-term debt has a positive effect on capital expenditures.

Rights issue has a negative effect on capital expenditures with a significant p value  $0.0515 < 10\%$ . Issuance of new shares (rights issue) can be regarded as a positive or negative signal. It depends on the investor's perception of the limited supply made. If the company needs funds for the expansion of investment that will provide benefits in the future then the investor will accept this as good news, but if the funds will be used to pay the obligations that will mature in order to improve the financial performance of the terms, it is regarded as bad news. (Sukwadi, 2006). Companies that are experiencing financial constraints, tend to have lots of debt (Cleary, 1999). The addition of funds from the rights issue negatively affect the activities of the company capital expenditures. It is demonstrated that capital expenditures are not funded by rights issue. If the company conduct a rights issue, it can be used for other activities such as paying the obligations that will mature. The above result that rights issue has a negative effect on capital expenditures has the opposite effect with the hypothesis.

#### **4.6 Panel Data Results for Financially Constrained Firms and Old Category**

Table 9 shows that cash flow from financing activities has a positive effect on capital expenditures with a significant p value  $0.0362 < 5\%$ . The same with the financially constrained firms in general, older firms that are experiencing financial constraints also use cash flow from financing activities to fund their capital expenditures. Old companies even though experiencing financial constraints, were able to obtain funding from sources above, because lenders and investors are familiar with the company's performance. The above result supports the first hypothesis : cash flow has a positive effect on capital expenditures.

Right issue has a positive effect on capital expenditures with a significant p value  $0.0508 < 10\%$ . Effects of rights issue on capital expenditures to financially constrained firms are positive and significant to the older category. This suggests that this type of company is able to obtain funds from a rights issue to finance capital expenditures. The above result supports the fourth hypothesis: rights issue has a positive effect on capital expenditures.

Further Alti (2003) stated that the company's age is a proxy to the quality of old age companies. The older the company, the more convinced the public and investors of

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Cash flow from financing activities has a positive effect on capital expenditures with a significant p value  $0.0859 < 10\%$ . Previous studies such as those conducted by Fazzari, et al (1988), Hoshi, et al (1991), Oliner and Rudebush (1992), Whited (1992), Schaller (1993), Gilchrest and Himmelberg (1995) demonstrated that the activity of capital expenditures depend on cash flow from operations. But the results of this study demonstrated that the constrained firms' capital expenditures depend on the cash flow from financing activities. Cash flow from financing activities that includes the addition of short-term loans, cash flow from bonds and cash flow from the limited offerings. Cash flow is sufficient to fund capital expenditures of the company. The average cash flow from financing activities approximately 13.38% higher than the company's food and beverage industry as a whole (8.13%).

The above results indicate that the higher cash flow the higher the capital expenditures of the company. These results support the first hypothesis.

Growth of short-term debt has a positive effect on capital expenditures with a significant p value  $0.0689 < 10\%$ . This result supports the second hypothesis : short-term debt has a positive effect on capital expenditures of financially constrained firms. This indicates that the activities of capital expenditures depend on the firm's short-term debt. Pal and Kozhan (2006); Dasgupta and Sengupta (2007) stated that this type of company is possible to issue short-term debt than long-term debt, related to the risks faced and the confidence of creditors. This study also supports research by Almeida, et al (2004) and Kristianti (2011) which proves that the capital expenditures made by the financially constrained firms depend on short-term debt. Creditors will have more confidence to lend short term than long-term loans to financially constrained firms because the loan maturity is less than one year, so that creditors can assess the accuracy of loan interest and principal payments. If a company is deemed to have a good reputation in terms of short-term debt, then creditors do not hesitate to add to the loan if the loan has matured or repaid. The above result supports the second hypothesis: short-term debt has a positive effect on capital expenditures of financially constrained firms.

### 4.5 Panel Data Results for Financially Constrained Firms and Young Category

Table 10 shows that the average age of companies that experience financial constraints on the food and beverage is 33.5 years; Company under the average age is categorized as a young company, and above the average age is considered an old company. These results indicate that the four companies are young and 6 companies are the old category. The test of panel data for financially constrained firms and young category can be done by three methods, namely ordinary least square, fixed effect and random effect methods. But random effect method can not be done because the number of individuals (4 companies) are smaller than the coefficients including intercept (8 coefficients). This is also applied for financially constrained firms and old category because the number of individuals (6 companies) are smaller than the coefficients including intercept (8 coefficients). The selection of the best method between ordinary least square or fixed effect method for financially constrained firms, young and old category are shown in Table 11 and Table 12.

Table 9 shows that cash flow from operating activities has a positive effect on capital expenditures with a significant p value  $0.0598 < 10\%$ . These results support research conducted by Fazzari, et al (1988); Kristianti (2011) which demonstrated the activity of capital expenditures funded by cash flow from operating activities of the company.

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Durbin watson > 2 for all methods, the smallest residual sum of squares of the fixed effect method are the most significant variables is fixed effect method .

**Table 9**  
**The Summary of Panel Data Test**

<b>Financially Constrained Firms - Fixed Effect Method</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob</b>
C	0.010120	0.031793	0.318310	0.7510
CFO	0.056134	0.061425	0.913866	0.3634
CFI	-0.137038	0.081972	-1.671768	0.0983
CFF	0.099467	0.057229	1.738030	0.0859
STD	0.063910	0.034685	1.842589	0.0689
PROF	0.016903	0.017767	0.951362	0.3442
RGI	0.148950	0.160411	0.928550	0.3558
<b>R-squared 0.195168</b>				
<b>Adjusted R-squared 0.051448</b>				
<b>Financially Constrained Firms of Young Category – Fixed Effect Method</b>				
C	-0.033465	0.029159	-1.147675	0.2602
CFO	0.055907	0.028575	1.956472	0.0598
CFI	-0.057668	0.096266	-0.599047	0.5536
CFF	0.021917	0.026929	0.813897	0.4221
STD	0.220890	0.055278	3.996010	0.0004
PROF	-0.024492	0.043464	-0.563494	0.5773
RGI	-0.290310	0.143140	-2.028155	0.0515
<b>R-squared 0.505868</b>				
<b>Adjusted R-squared 0.357628</b>				
<b>Financially Constrained Firms of Old Category - Fixed Effect Method</b>				
C	0.072547	0.041680	1.740577	0.0882
CFO	-0.095624	0.120709	-0.792180	0.4322
CFI	-0.136064	0.145795	-0.933253	0.3554
CFF	0.262942	0.122013	2.155028	0.0362
STD	-0.043223	0.042914	-1.007210	0.3189
PROF	-0.008952	0.042012	-0.213078	0.8322
RGI	0.363960	0.181683	2.003267	0.0508
<b>R-squared 0.322608</b>				
<b>Adjusted R-squared 0.167372</b>				

The results of panel data for financially constrained firms, young and old categories can be seen in Table 9. It shows that cash flow from investing activities has a negative effect on capital expenditures with a significant p value  $0.0983 < 10\%$ . Negative value of cash flow from investing activities suggests that many companies make the purchase of fixed assets. These results suggest that financially constrained firms do a lot of additional fixed assets, thus increasing the activity of its capital expenditures. However, the activity of their capital expenditures is relatively low at about 6% compared to the entire food and beverage industry which is for about 10%.

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**Table 5 Hosmer and Lemeshow Test**

**Hosmer and Lemeshow Test**

Step	Chi-square	df	Sig.
1	9,943	8	,269

**Table 6 Variables in the Equation**

**Variables in the Equation**

Step		B	S.E.	Wald	df	Sig.	Exp(B)	95,0% C.I. for EXP(B)	
								Lower	Upper
1	NIM	,401	,295	1,843	1	,175	1,493	,837	2,662
	NSG	-,444	,825	,290	1	,590	,641	,127	3,231
	DPR	,012	,007	2,920	1	,087	1,012	,998	1,027
	CX	,276	,562	,241	1	,623	1,318	,438	3,963
	CF	3,111	1,131	7,563	1	,006	22,449	2,445	206,148
	DR	-2,518	1,084	5,398	1	,020	,081	,010	,674
	Constant	-,104	,559	,034	1	,853	,901		

a. Variable(s) entered on step 1: NIM, NSG, DPR, CX, CF, DR.

### 4.3 Summary Statistic

Table 7 shows the average capital expenditures of financial constrained firms is 6.9% while the average is 10.54% throughout the company. This suggests that financial constrained firms have an average of underinvestment that is lower than the capital expenditures of the food and beverage companies as a whole.

The average operating cash flow of financially constrained firms is 20.64% while the average throughout the company is 35.01%. The average cash flow from investing of financially constrained firms is -7.67% while the average throughout the company is -12.28%. Negative value of cash flow from investing activities shows that the food and beverage companies seldom sale fixed assets. Activities that are done are the purchase of fixed assets and make payment of the bonds. The average cash flow from financing activities of financial constrained firms is 13.38% while the average is 8.12% throughout the company. Average growth of short-term debt of financial constrained firms is 20.9% while the average is 20.5% throughout the company. The average profitability of the financial constrained firms is 12.45% while the average is 9.44% throughout the company. It does show that though experiencing financial constraints, companies of this type have a higher level of profitability than the entire food and beverage industry. Financially constrained firms do a rights issue as much as 6 times during the period 2002 to 2011. While all companies make a rights issue as much as 8 times during the period 2002-2011. This shows that financially constrained firms tend to do a rights issue to get additional funds than non financially constrained firms.

### 4.4 Panel Data Results for Financially Constrained Firms

The test of panel data can be done by three methods, namely ordinary least square, fixed effect and random effect methods. Table 8 shows that the highest R-square of the fixed effect method, the highest Adjusted R-square of the fixed effect method,

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Outcome category can be seen in Table 3, the financially constrained firms amounted to 112 companies while non financially constrained companies amounted to 38 companies.

**Table 3 Initial Categories Are By Using Dividend Per Share, Cash flow/Net Fixed Asset and Coverage Ratio**

Group of Companies	Total
Financially Constrained Firms	112
Non Financially Constrained Firms	38
Total	150

### 4.2 Results of Logistic Regression Test

Logit analysis results are shown in Table 4. The financially constrained firms are as much as 112 companies, 109 firms are still classified as financially constrained firms and 3 companies are missclassification (move into non financially constrained firms). Non financially constrained firms are 38 companies, 10 companies are still classified as non financially constrained firms, and 28 companies are missclassification (switch to the financially constrained firms). The final result shows that firms are classified as financially constrained firms are 137 companies and non financially constrained firms are 13 companies. But only 10 companies for ten consecutive years are classified as financially constrained firms. So these companies will be analyzed using panel data. The total truth of classification in this study is 79.3%. These results were better than studies made by Cleary (1999), with a classification rate of 74% truth.

**Table 4 Classification of Companies Is By Using Logit Analysis**

Classification Table <sup>a</sup>					
Observed			Predicted		Percentage Correct
			STATAKH		
			0	1	
Step 1	STATAKH	0	109	3	97,3
		1	28	10	26,3
Overall Percentage					79,3

a. The cut value is ,500

The resulting model fit is meaning that the data used will match the model established. This is shown in Table 5, which shows Hosmer and Lemeshow test has a p value of  $0.269 > 5\%$ . Significant variables to categorize companies into financially constrained and non financially constrained firms (see Table 6) are the dividend payout ratio (p value  $0.087 < 10\%$ ), cash flow (p value  $0.006 < 5\%$ ) and debt ratio (p value  $0.081 < 10\%$ ). While the variables of net income margin, net sales growth and capex are not significant. The greater the dividend, the greater the cash flow and the lower debt owned by the company, the more likely the company is to not having financial constraints.

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- a) Financially constrained firms (symbol 1): Companies that distribute dividends per share each year
- b) Non financially constrained firms (symbol 0): Companies that do not distribute dividends per share each year.

### 2. Cash flow / net fixed assets

The initial categories used by Guariglia (2008) stated that the company is experiencing financial constraints when its cash flow / net fixed assets is low. Cash flow used is the total cash flow from operating, investing and financing activities. Cash flow / net fixed assets are divided into two, namely:

- a) The above or equal to the average of the sample, categorized as non financially constrained firms (symbol 1).
- b) At the bottom of the sample, categorized as the financially constrained firms (symbol 0).

### 3. Coverage ratio

The initial categories are used by Guariglia (2008) which stated that the company is experiencing financial constraints when it has a lower coverage ratio. Coverage ratio is EBIT divided by interest payments. Coverage ratio are divided into two:

- a) The above or equal to the average of the sample, categorized as non financially constrained firms (symbol 1)
- b) At the bottom of the sample, categorized as the financially constrained firms (symbol 0).

Having obtained the initial categories based on the indicators above, this study is followed by using a logit analysis of financial ratios. The better a company's financial ratios are the relatively easier in seeking external funding. Creditors usually have more confidence to lend to companies that are performing well compared to companies whose performance is bad. Categorizing the logit analysis is also intended to strengthen the grouping because a case can occur where a company that is based on the initial category experiencing financial constraints. After applying logit analysis to financial ratios, the companies may continue to experience financial constraints, or are not constrained anymore (to be move category becomes non financially constrained firms). And vice versa. Financial ratios used are among others, current ratio, net income margin, net sales growth, debt ratio, dividend payout ratio, capex, cash flow / net fixed assets and ln net fixed asset.

## 4. The findings

### 4.1 Results of Company Categorization

Prior to the logit analysis, tested and demonstrated multicollinearity, the following is free from multicollinearity : a net income margin, net sales growth, dividend payout ratio, capital expenditures, cash flow and debt ratio. The food and beverage companies period 2000 - 2011 consist of 17 companies for ten years so the total amounted to 170 companies. But the twenty companies had incomplete data so that the total sample used in this study amounted to 150 companies, which consist of 15 companies for ten years. Initial categories based company (1) Dividend Per Share, (2) cash flow / net fixed assets, (3) coverage ratio, which the companies are categorized into financially constrained if minimum they meet two of the indicators.

**Table 2**  
**Definitions and Measures of Variables**

Variables	Definitions	Proxies
CAPEX	The growth of net fixed assets.	$\text{Capital expenditures} = \frac{\text{Net Fixed Assets } t - \text{Net Fixed Assets } t-1}{\text{Net Fixed Assets } t-1}$
CASH FLOW 1	Cash flow from operating activities	$\text{CASH FLOW 1} = \frac{\text{Cash flow from operating activities } t}{\text{net fixed assets } t}$
CASH FLOW 2	Cash flow from investing activities	$\text{CASH FLOW 2} = \frac{\text{Cash flow from investing activities } t}{\text{net fixed assets } t}$
CASH FLOW 3.	Cash flow from financing activities	$\text{CASH FLOW 3} = \frac{\text{Cash flow from financing activities } t}{\text{net fixed assets } t}$
ΔSTD	Short term debt growth	$\Delta \text{STD} = \frac{\text{short term debt } t - \text{short term debt } t-1}{\text{short term debt } t-1}$
PROF	Profitability is the net profit generated companies	$\text{PROFITABILITY} = \frac{\text{Net income (Earning After Taxes)}}{\text{Total Assets}}$
Dummy variable of RI	RI (Rights issue) is the issuance of new shares by the company.	This study used a dummy variable to determine whether the company made a rights issue or not. If the company did the rights issue, given the symbol 1 and vice versa if the company did not do a rights issue given the symbol 0.
Firm Age	The number of years between companies were established until period of research.	Sample of financially constrained firms will be split again into the category of young and old. Above the average age of the sample is categorized old company, while the same or below the average age of the sample is considered young firms.

### 3.3 Technique Categorization

Food and beverage companies that are listed on the Indonesia Stock Exchange during 2002 - 2011 will be categorized into financially constrained firms and non financially constrained firms. Initial categorization is by using (1) dividend per share (DPS) (2) cash flow / net fixed assets, and (3) coverage ratio. In Indonesia, there are many companies that do not distribute dividends every year. This can be because the company has experienced financial constraints or existing funds are used to finance its growth. So this study adds cash flow / net fixed assets and the coverage ratio as the initial category. Explanation for the initial categories is as follows:

#### 1. Dividend per share.

The initial categories developed by Cleary (1999).

## 3.2 Definition and Measures of Variables

### 3.2.1 Models

We examine the following panel data models :

$$\text{CAPEX}_{i,t,FC} = a + b \text{CF1}_{i,t} + c \text{CF2}_{i,t} + d \text{CF3}_{i,t} + e \Delta\text{STD}_{i,t} + f \text{PROF}_{i,t} + g \text{RI}_{i,t}$$

$$\text{CAPEX}_{i,t,Y,FC} = a + b \text{CF1}_{i,t} + c \text{CF2}_{i,t} + d \text{CF3}_{i,t} + e \Delta\text{STD}_{i,t} + f \text{PROF}_{i,t} + g \text{RI}_{i,t}$$

$$\text{CAPEX}_{i,t,O,FC} = a + b \text{CF1}_{i,t} + c \text{CF2}_{i,t} + d \text{CF3}_{i,t} + e \Delta\text{STD}_{i,t} + f \text{PROF}_{i,t} + g \text{RI}_{i,t}$$

Where :

$\text{CAPEX}_{FC}$  = capital expenditures of financially constrained firms

$\text{CAPEX}_{Y,FC}$  = capital expenditures of young and financially constrained firms

$\text{CAPEX}_{O,FC}$  = capital expenditures of old and financially constrained firms

CF1 = cash flow from operating activities

CF2 = cash flow from investing activities

CF3 = cash flow from financing activities

$\Delta\text{STD}$  = short term debt growth

PROF = profitability

RI = rights issue

### 3.2.2 Variables Definition

This research has two kinds of variables, they are dependent and independent variables. Dependent variable in this study is the capital expenditures and independent variables are cash flow from operating activities, investment activities, financing activities, short term debt growth, profitability and rights issue. We use firm age to divide sample into two categories. They are 1) young category of financially constrained firms, and 2) old category of financially constrained firms. The definitions and measures of variables are given in table 2.

there is more liquid trading. While if companies are not doing a rights issue, it can be because they are not troubled by their financial position and they have good financial performance. So they do not require additional funds to overcome financial difficulties. A rights issue will be an important source of finance, if the decision to raise capital from the issuance of shares brings positive information about the prospects of the company's performance in the future. (Eckbo & Masulis, 1992).

Issuance of new shares (rights issue) can be regarded as a positive or negative signal. This depends on the investor's perception of the activities. If the company needs funds for the expansion of investment that will provide benefits in the future then the investor will accept this as good news. But, if the funds will be used to pay the obligations that will mature in order to improve the financial performance of the terms, it is regarded as bad news. (Sukwadi, 2006).

### 3. The Methodology and Model

#### 3.1 Population and Sampling Techniques

Population used in this study is a food and beverage industry that is experiencing financial constraints on the Indonesia Stock Exchange during 2002 to 2011. The sampling technique was purposive sampling, that is non-probability sampling technique based on the experience or judgment to select a sample according to the characteristics required in the study (Zikmund, 2000). The criteria used for the sampling of this research are:

- a) Food and beverage companies are experiencing financial constraints on the Indonesia Stock Exchange during 2002 to 2011.
- b) Companies are experiencing financial constraints every year in a row during the observation period.

Sample selection procedure is given in table 1

**Table 1**  
**Sample Selection Procedure**

<b>Companies</b>	<b>Number of companies each year</b>	<b>Total Companies For 10 years</b>
Food and beverages companies	17 companies	170 companies
	2 companies have incomplete data	20 companies
	15 companies	150 companies*
Financially constrained firms	10 companies for ten consecutive years are classified as financially constrained firms.	100 companies

\*150 companies are analyzed by logistic regression test

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hypothesis, firms prefer using internal financing first, debt and the issuance of shares, because the company wants to avoid flotation costs that typically accompany the use of external funding (Donaldson, 1961).

Vogt (1994) stated that there is a strong correlation between cash flow and investment spending. His research proved that the main funding source of the selected firms to fund investment expenditures is funding internally. Companies that have good levels of liquidity will be easier to fund its investment from cash owned. This research is supported by Carpenter and Guagriglia (2003) that cash flow has a positive effect on corporate investment in both large and small companies.

- 2) H2 : Short-term debt has a positive effect on capital expenditures of financially constrained firms.

Mills, et al. (1995) stated that investment policy made by financially constrained firms is significantly and negatively affected by debt. This can be understood that because this company already has a lot of debt, so it is experiencing difficulty in adding to its debt capacity (Cleary, 1999). But research conducted by Bhagat, et al (2005) proved that the debt has a positive effect on capital expenditures policy. Further stated that the financial constraints faced by firms sometimes are temporary, so the company can still make use of debt to fund its investment activities.

Diamond (1993) stated that companies with high asymmetric information will issue short-term debt. The addition of short-term debt is expected to increase liquidity, so companies do not use a lot of cash. Pal and Kozhan (2006); Dasgupta and Sengupta (2007) stated that more financially constrained firms can access short-term debt than long-term debt. This relates to the risk faced by creditors and beliefs regarding the payment of debt.

- 3) H3 : Profitability has a positive effect on capital expenditures of financially constrained firms.

Profitability is the company's ability to generate profits. Myers and Majluf (1984) stated that companies with high profit would have sufficient internal funds to finance its operations so does not require much external funding. While Johnson and Lee (1994) stated if a company is more dependent on internal funds than external funds to finance its investment activities, the company will depend on its ability to generate profit. This is consistent with the research conducted by Fazzari, et al (1988) that stated that one of the characteristics of financially constrained firms is the limitations in obtaining external funding. So if there is a high level of corporate profitability, it will increase the availability of internal funds, which can be used to fund its investment activities.

- 4) H4 : Rights issue has a positive effect on capital expenditures of financially constrained firms.

Rights issue aims to seek additional funds for a company's use including additional investments or to pay debts that fall due, increase the share of shareholder ownership and increase the number of shares outstanding so that

## 2. Literature Review

The phenomenon of cash flow sensitivity as evidenced by previous studies used the cash flow from operations. This study tried to explore the influence of the three cash flows, namely cash flow from operating, cash flow from investing and cash flow from financing activities that do have an influence on the activities of capital expenditures. While the use of debt to fund capital expenditures of financially constrained firms have also been studied. Mills, et al, (1995) proved that a significant negative effect of debt, while Bhagat, et al (2005) proved the contrary, a significant positive effect of debt. This study will focus on short-term debt, as one possible source that is still accessible to financially constrained firms. Pal and Kozhan (2006); Dasgupta and Sengupta (2007) stated that financially constrained firms are more likely to access short-term debt. This is related to investor confidence about the back payment.

The amount of dividends and retained earnings generated depends on the company's profits. If a corporation distributes dividends in large numbers, then the funds available for investment activities becomes less. Vice versa, if the company does not distribute dividends, the available internal funds are large enough to fund its investment activities. Given the financially constrained firms have internal funding limitations, this study needs to include profitability variables to determine the amount of the availability of internal funding sources that can be used to pay dividends and to fund its investment activities.

The company can make rights issue to satisfy its capital needs. Proceeds from the rights issue can be used for various purposes such as construction of new plants, the addition of working capital, product diversification, debt payments, or for the company's development plans in the future. This study will look at whether rights issue conducted by the company are used to fund capital expenditures or used for other activities.

Young companies that have not been long standing tend to be at the introductory and growth stage. This type of company requires a lot of money to enlarge its company. Investment opportunities are still wide open. But being young and new, the company has not shown track records and has not been widely known to the public, so it faces obstacles in obtaining external funding sources. This study wants to prove whether there is the age barrier for more financially constrained firms to obtain external financing. So that this study will split the samples into two: the old companies experiencing financial constraints and the young companies experiencing financial constraints.

This study tries to explore the theories that underlie some hypotheses, and they will be discussed in the next paragraph.

- 1) H1 : Cash flow has a positive effect on capital expenditures of financially constrained firms.

Factors that affect capital expenditures on financially constrained firms have been studied by several researchers. Fazzari, et al (1988) proved that cash flow has a positive effect on capital expenditures in the company's policy of constrained finances. This is due to companies experiencing financial constraints, that have limitations in accessing external funding, so that internal financing is the most likely source of funding. Based on the pecking order

## **Capital Expenditures and Financial Constraints: Evidence from Indonesia Stock Exchange**

Rina Adi Kristianti\*<sup>1</sup>

*This study attempts to explore the sources of capital which are often used to fund capital expenditures of financially constrained firms. Significant sources of funding include cash flow from investing and financing activities and growth of short-term debt. While the young company that has financial constraints, sources of funding affect capital expenditures activities such as cash flow from operating activities, growth of short-term debt and rights issue. The factors shown that affect capital expenditures of financially constrained firms and old category are cash flow from financing activities and rights issue.*

**JEL Codes:** F34, G21 and G24

### **1. Introduction**

Financially constrained firms are companies that have limited internal funding and limitations in accessing external funding (Lamont, et al 2001; Guariglia, 2008). Such companies are experiencing underinvestment in which the average capital expenditures are lower than similar companies. (Holstrom and Tirole, 1997, 1998, 2000). The company that is experiencing financial constraints should be able to manage their own funds in order to enhance its growth. Research on the factors that influence the activities of capital expenditures to financially constrained firms have been carried out. Fazzari, et al (1988) proved the existence of the phenomenon of investment-cash flow sensitivity in financially constrained firms. Research conducted by Kaplan and Zingales (1999) gave different results, namely capital expenditures are more dependent on cash flow to the company that is not experiencing financial constraint.

This research tries to explore factors that affect to capital expenditures in financially constrained firms, because the previous reserches gave different results and this research tries to explore new variables that have not been explored by previous researchers. The factors thought to affect capital expenditures are cash flow, debt, profitability and rights issue.

Furthermore, this paper will discuss the literature review and hypotheses; research methodology that will explain the process of sampling, definitions and measures of variables, technique companies categorization into financially and non financially constrained firms, results of research that will explain the results of companies categorization into financially and non financially constrained firms, logistics regression test, and panel data test; the last part will discuss summary and conclusions.

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