Earnings Management and Accounting Information Value: Impact and Relevance

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Abstract: This study examined the relevance of the information in the financial statements to test the impact of earnings management practices to the relevance of financial statement information. The financial information used was earnings and book value. This research separates proxy earning management discretionary accruals into short-term and long-term discretionary accruals. The test results against a company sample 822 listings in Indonesia stock exchange (IDX) during the period 2013 – 2015 proves that earnings and book value of equity does not lose its relevance as indicators for assessing the performance of a company. The study also found that, earnings management does not have any impact on the relevance of earnings and book value of equity when earnings management is done through short-term and longterm discretionary accruals.

Keywords: Earnings; Book value; Earnings management; Discretionary accruals; Short-term; Long-term discretionary accruals.

1. Introduction

The objective of financial statements is to provide information useful for decision making. To facilitate these goals, financial accounting standards of Indonesia, namely Financial accounting standards (IFRSs) (Ikatan Akuntan Indonesia, 2009), explaining the main criteria that must-have accounting information in order to be used in the decision-making process is relevant and reliable. Accounting information is said to be relevant in a decision could affect strengthen or change the expectation of decision-makers, and such information is reliable when reliability and lead to user information are subject with such information.

An important component in the financial statements that are often used as a tool to inform the company's performance is earnings and book value. Profit has a value of relevance when statistically correlated with stock prices: the decline and increase in earnings associated with a decrease or increase in stock prices (Ball and Brown, 1968). Likewise with the book value, the book value relevance comes from its role as a proxy for the value of adaptation and rejection value (Burgstahler and Dichev, 1997).

Problems will occur when the relevance of earnings and book value as a measure of the performance of companies are faced with the practice of manipulation (earnings management) managers do. The relevance of the profits of a company that is indicated to earnings management should be lower than companies that do not perform earnings management. As a result, market participants will move from profit to book value in the process of assessment of a company. Past studies have shown that earnings management causes significant impairment relevant to earnings and book value (Habib, 2004); (Adisetiawan, 2011). But previous studies did not prove the transfer focus to the book value of the company's judgment when such profits are no longer relevant for assessing the company (Whelan and McNamara, 2004).

Research that tests the relevance of accounting information represented by earnings and book value in Indonesia is still a little bit. Existing studies generally test the relevance of earnings and book value that is associated with the Division of policy influence dividend accrual and size, the quality of the company (Anggono and dan Zaki, 2003); (Adisetiawan, 2011;2013); the impact of the financial crisis of 1997-1998 (Mayangsari, 2004); market value (Indra, 2004) ; (Suwardi, 2005). There is no research in Indonesia who tested the impact of earnings management against the relevance and value of the book. So far there are only two of the literature on the impact of earnings management against the relevance and value of the book can be found, i.e. research conducted with Habib (2004) evidence from Japan, and the research of Whelan and McNamara (2004) with evidence from Australia.

Therefore, this study aims to test the relevance of earnings and book value in company valuation and test the influence earnings management against the relevance of both the accounting information. Earlier studies generally use aggregate accruals approach to measure the presence of earnings management. This approach sought to separate

the total accrual became a component of the non-discretionary accruals (accrual components is outside of policy management) and discretionary accruals (accrual Components in policy management or Manager to intervene in the financial reporting process).

One advantage of aggregate accruals approach is the approach potentially can reveal ways to raise or lower the profits, because that means less attention to be known by outsiders (Gumanti, 2000). However, the use of discretionary accruals (aggregate accruals) reaped much criticism from researchers including Gomez *et al.* (1999). They reasoned that these models (aggregate accruals/discretionary accruals) disregarded the relationship between cash flow and accruals accruals nondiscretionary, so some have mistaken classification and classified as discretionary. These errors result in an error in the specification of the models. The same is expressed by Hansen (1999), which proves that there are structural variables changes the company which is not solely attributable to the Manager's discretion in the financial statements, but rather relate to the purpose and nature of the estimation of discretionary accruals.

Therefore, these variables resulted in the existence of an error in the measurement of profit management based on the model of Jones (1991). Jones (1991) model is modified, and Kothari *et al.* (2005), also added that the models failed in the mengestimasi portion of the total discretionary accrual and probably will cause serious problems in drawing conclusions. The new model offered by Whelan and McNamara (2004) is a development of the old models, such as the model Jones (1991) and Dechow (1994). It is an old model, discretionary accruals that are still broken down into components of short-term discretionary accruals and long-term discretionary accruals. The separation is therefore expected to better explain the role of each component of discretionary accruals in the set. Evidence from the research of Whelan and McNamara (2004) point out, long-term and short-term discretionary accruals had different effects against the relevance of financial reporting information. These effects could not be revealed with the old model, so the more pointed out the weaknesses of the old models just short term-oriented focus. This research follows the new model offered Whelan and McNamara (2004).

2. Literature Review
2.1. Earnings Management
The definition of earnings management to date, earnings management is far from defined accurately and apply generally. Dechow and Skinner (2000) mentions that at this time there are 2 (two) opinions concerning earnings management can already widely accepted, including: (1) according to Schipper (1989), earnings management is a deliberate intervention undertaken with a specific intent against external financial reporting process to obtain some personal benefit; and (2) according to Healy and Wahlen (1999), earnings management happened when managers use judgement in financial reporting and the preparation of the transaction to modify financial statements misleading against a shareholder on the basis of the economic performance of the organization or to influence the outcome in accordance with the contract depending on the figures reported accounting. Two opinions that implicitly means that earnings management closely kaitanya with motivation-motivation underlying managers perform earnings management, goals to be achieved, managers and the use of judgment-judgment in financial reporting.

Two primary motivation managers do profit management, i.e. the purpose of opportunists and information (signaling) to investors. The purpose of opportunists might be detrimental to users of the financial statements since management of the information submitted be not accurate nor does it describe the fundamental value of the company. This opportunistic attitude considered fraudulent corporate management attitude implied in his report upon the face of intertemporal choice (a condition that forced the Executive to use a particular decision in reporting a profitable performance for himself when facing a certain situation). The attitude of the cheating is defined as one or more actions that are intentional and designed to deceive others causing loss of wealth (Beneish, 2001).

Informative purpose (signaling) will most likely bring a good impact to the users of the financial statements. The Manager tried to inform of opportunities that can be achieved by the company in the future. For example, because the Manager is closely associated with decisions related to investment activity or company operations, automatic managers have better information about a company's future prospects. Therefore, managers are able to estimate future earnings in good and informed to investors or other financial statement users. Managers can use diskresi accrual to reflect the company's performance through report profit (Gul *et al.*, 2003); (Adisetiawan, 2013).

2.2. The Relevance of Earnings and Book Value
In the accounting literature, the relevance of accounting information (financial statements) are defined in different ways. (Lev, 1989) mentions that the relevance of accounting value is characterized by the quality of accounting information. Francis and Schipper (1999) provide a more comprehensive understanding of it by mentioning the four possibilities of interpretation invalid constructs the relevance value. First, the information financial statements affect stock prices because they contain the intrinsic value of the stock so that the effect on stock prices. Second, financial report information is relevant when the value contains variables that can be used in the assessment model or predict these variables. Third, the relationship of the statistics used to measure whether investors actually using the information in the pricing, so the relevant value is measured by the ability of financial reporting information to change the stock price because investors fix ekspektasinya. Finally, the relevance of the values measured by the ability of financial reporting information to catch a wide variety of information that affects the value of the stock. In line with previous research, then the research this time using the interpretation of the fourth.

A study of the relevance of accounting information is already in progress for a long time. Some of the research that initiated the studies among others, (Ball and Brown, 1968). Both the research test the value relevance of earnings. The variable profit alleged to have relevant value because it has a relationship with statistics stock price that reflects the value of the company (Ball and Brown, 1968). The book value is alleged to have relevant values because the value of the book is the replacement (proxy) for a normal future income expected (Ohlson, 1995), and its role as a proxy for the value of adaptation and rejection value (Burgstahler and Dichev, 1997). Recent studies prove that profits and book value still has value relevant. The value of earnings and book value related to negative earnings (Shamy and Kayed, 2005), non-information-based trading (Dontoh *et al.*, 2005), accounting reforms (Ben Naceur and Nachi, 2006), profit and loss firms (Franzen and Suresh, 2009).

In Indonesia, the study of Indra (2004); as well as Suwardi (2005), proving the relevance of earnings and book value shows an increase from time to time and as the basis of future investor expectations. The relevance of earnings and book value is also associated with the Policy Division of dividend accrual and size, the quality of the company (Anggono and dan Zaki, 2003) accounting policies against management profit (Adisetiawan, 2013). From the results of these studies indicated that the earnings and book value is still an important variable in the process of company valuation. Therefore the first hypothesis formulation in this research:

Hypothesis 1: Earnings and book value have a value relevant.

The value relevance of earnings and book value of the company in determining when companies manage profits is still an unanswered question. Some studies show that both of these variables can be interchangeably, when the relevant profits reduced hence relevance of book value will increase (Anggono and dan Zaki, 2003; Collins *et al.*, 1997). When the company did a practice management profit, profit picture can no longer represent the performance of the company's fair, so that will reduce the reliability of the spider itself. Thus, profit became less relevant information, and then the market will move from profit to book value in the focus of assessment (Whelan and McNamara, 2004).

The research of Habib (2004) supports the transfer of assessment focus investors in determining the value of the company. How is the role of resource management profit (short-term, long-term, total discretionary accruals) affect the relevance of profit and cause focus switches to market valuation the value of a book is also still unclear. Short-term and longterm accruals have different characteristics. Short-term accruals have a relatively short period of time to be able to come back, usually until the first quarter or one year's books (Dechow, 1994). While long-term accruals have a period of more than one year to return (Dechow, 1994). Managers can take advantage of the differences in the characteristics, managers will face difficulty in manipulating accounting data if it should set up accrual with short-term discretionary accruals, as the market is hoping the accrual of this type will be returned as soon as possible (Whelan and McNamara, 2004). Instead, managers will be easier to manipulate accounting data via long-term discretionary accruals, as the Manager's actions cannot be detected for some of the next accounting period (Whelan and McNamara, 2004).

According to Dechow (1994), if accrual is aimed at reducing the problem of timing and matching in cash flow, use of short-term accruals are intended to further reduce the issue of timing and matching. In the meantime, there is no clarity reasons the use of long-term accruals to accommodate those goals. This is due to the use of the accrual type is affected by long-term political process (Watts and Zimmerman, 1990). Evidence from the research of Richardson *et al.* (2001) also mentioned that the use of long-term accruals more give you information in the future to the SEC (Securities Exchange Commisison) compared to short-term accruals.

Therefore, this study is testing the role of each of these sources of profit management with the following hypothesis:

Hypothesis 2A: reduced profit value and Relevance the relevance of book value increased, when the company set up a profit through short-term discretionary accruals.

Hypothesis 2B: reduced profit value and Relevance the relevance of book value increased, when the company set up a profit through long-term discretionary accruals.

Hypothesis 2 c: the relevance of the value relevance of earnings and reduced book value increased, when the company set up a profit through total discretionary accruals.

With characteristic belonging to each type of accrual, the market probably will assume the use of short-term discretionary accruals for the purpose of signaling. This may be caused because the markets assume that the Manager will not be brave enough to do manipulations with little chance. In the meantime, the market will probably consider the use of long-term discretionary accruals is Business Manager for fooling market participants, because of the nature of such accrual that provide an opportunity for managers to do manipulation (Whelan and McNamara, 2004). Thus, the impact of the use of long-term discretionary accruals will be larger than the short-term discretionary accruals.

The results of the research of (Whelan and McNamara, 2004) showed that the total profit management through discretionary accruals have no impact on the relevance of earnings and book value. Profit management through discretionary accruals short-term and long-term discretionary accruals is proven to reduce the relevance of profit but has no impact on the relevance of the book value. The hypotheses used to prove the prediction type accrual are:

Hypothesis 3: profit Management through long-term accruals have a greater impact on the relevance of profit value and the book value than earnings management through short-term accruals.

3. Method

Populations in research include all of the companies listed in Indonesia stock exchange, from 2013-2015. The sample in the research this time is determined by the following criteria: (1) companies publish financial statements by using a fiscal year that ends on December 31. This step needs to be taken to improve the compatibility of the companies in the sample; (2) companies engaged in finance, banking, insurance and other financial institutions not included in the selection of the sample. It is intended to avoid the industry with specific rules that may affect the use of discretionary accruals; and (3) industry with the number of companies that are less than ten companies in each year, not including in the selection of the sample. This is to avoid deviations estimation in regression models Ordinary Least Square (OLS) used with dummy variables as indicators of earnings management. With these criteria the number of samples obtained can be seen in Table 1.

Table-1. Composition Of The Sample

	2013	2014	2015	Total
The entire manufacturing company on the IDX	132	136	145	413
Reduced: less than 10 industrial companies	44	43	43	130
Less: financial report of the company does not complete	2	6	1	9
Number of samples	86	87	101	274

Source: IDX Fact Book 2016, Research and Development Division in Indonesia Stock Exchange (IDX)

Research variables are used, such as stock price, earnings, and book value, and discretionary accruals. Stock price (P) is the stock price per sheet at the end of March, or three months after the financial year ended 31 December. This method is so that the stock price has described the information in full annual report (Cheng *et al.*, 1996). In accordance with research Dechow (1994); Cheng *et al.* (1996) and Whelan and McNamara (2004), Earning (E) is earnings before extraordinary item per sheet. Book value (BV) is the book value of equity per sheet. Same is the case with a profit, the number of shares used as a deflator is the number of shares outstanding at the balance sheet date. By following the procedure the research of Whelan and McNamara (2004), the total accrual is the difference between earnings before extraordinary item with cash from operations.

$$ACC_{i,t} = EARN_{i,t} - CFO_{i,t} \qquad (1)$$

Where: $ACC_{i,t}$ = Total accrual the company i in year t; $EARN_{i,t}$ = Earning before extraordinary company i in year t; and, $CFO_{i,t}$ = Cash from operating the company i in t.

Short-term accruals according to Dechow (1994); Whelan and McNamara (2004) is defined as follows:

$$STACC_{i,t} = \Delta AR_{i,t} + \Delta INV_{i,t} + \Delta OCA_{i,t} - \Delta AP_{i,t} - \Delta TXP_{i,t} - \Delta OCL_{i,t} \qquad (2)$$

Where: $STACC_{i,t}$ = Short-term accruals company i in year t; $\Delta AR_{i,t}$ = Trade receivables year t reduced accounts receivable year t-1 company i; $\Delta INV_{i,t}$ = Inventory year t reduced inventory year t-1 company i; $\Delta OCA_{i,t}$ = Current assets other year t reduced current assets other years i; $\Delta AP_{i,t}$ = Trade payables year t reduced account payables year t-1 company i; $\Delta TXP_{i,t}$ = Tax debt the year t reduced debt tax years t-1 company i; and $\Delta OCL_{i,t}$ = Debt smoothly other year t reduced debt smoothly other t-1 enterprises i.

Total accruals, is a combination of the short-term and long-term accruals, then long-term accruals total accruals reduction sought by short-term accruals.

$$LTACC_{i,t} = ACC_{i,t} - STACC_{i,t} \qquad (3)$$

Where: $LTACC_{i,t}$ = long-term accruals the company i in year t; $ACC_{i,t}$ = Total Accruals company i in year t; and, $STACC_{i,t}$ = Short-term accruals company i in t.

To determine or no profit, engineered the first step used in previous models is by calculating the total accrual, then separate the nondiscretionary accruals (a reasonable accrual) and discretionary accruals (accrual is not normal and is a management option). Therefore, a component of discretionary accruals made against earnings management indicators; and the need for separation of discretionary accruals components into short-term; long-term and total discretionary accruals. Equations 1, 2 and 3 will be used to find the magnitude of the value of the variable total discretionary accruals, short-term discretionary accruals, and long-term discretionary accruals

Jones (1991) model is used to mengestimasi total discretionary accruals with a formula as follows:

$$\frac{ACC_{i,t}}{TA_{i,t-1}} = \varphi_1 \left(\frac{1}{TA_{i,t}} \right) + \varphi_2 \left(\frac{\Delta REV_{i,t}}{TA_{i,t-1}} \right) + \varphi_3 \left(\frac{PPE_{i,t}}{TA_{i,t-1}} \right) + \varepsilon_{i,t} \qquad (4)$$

Where: $ACC_{i,t}$ = Accrual the company i in t (obtained from Equation 1); $TA_{i,t-1}$ = Total assets of company i in t-1; $\Delta REV_{i,t}$ = t year income minus income years t-1 company i; $PPE_{i,t}$ = gross value of land, buildings, and equipment companies i year t; $\Sigma_{i,t}$ = error to the company i in t.

Estimation of the coefficients of the equation 4 ($\varphi_1,\varphi_2,\varphi_3$) used to calculate the expected accrual for each company, because the estimate is assumed to describe non-discretionary accruals, the difference with the above estimations with actual accrual is considered total discretionary accruals, DACC).

$$\text{DACC}_{i,t} = \frac{ACC_{i,t}}{TA_{i,t}} - \left[j_i \left(\frac{1}{TA_{i,t-1}} \right) + j_2 \left(\frac{\Delta REV_{i,t}}{TA_{i,t-1}} \right) + j_3 \left(\frac{PPE_{i,t}}{TA_{i,t-1}} \right) \right] \tag{5}$$

Short-term accruals are expected for the industry measured by income component model Jones (1991).

$$\frac{STACC_{i,t}}{TA_{i,t-1}} = \gamma_1 \left(\frac{1}{TA_{i,t-1}} \right) + \gamma_2 \left(\frac{\Delta REV_{i,t}}{TA_{i,t-1}} \right) + \varepsilon_{i,t} \tag{6}$$

Where: $STACC_{i,t}$ = Short-term accruals company i in t (equation 2) $TA_{i,t-1}$ = Total assets of company i in t-1; $\Delta REV_{i,t-1}$ = income t reduced revenue the year t-1 company i; and, $\varepsilon_{i,t}$ = error, company i in year t.

As well as counting the total discretionary accruals, difference estimation equation 6 with short-term actual accruals considered short-term discretionary accruals, STDACC.

$$\text{STDACC}_{i,t} = \frac{STACC_{i,t}}{TA_{i,t-1}} - \left[g_1 \left(\frac{1}{TA_{i,t-1}} \right) + g_2 \left(\frac{\Delta REV_{i,t}}{TA_{i,t-1}} \right) \right] \tag{7}$$

Estimation of long-term accruals expected, formed with variable land, buildings, and equipment (property, plant, equipment), intangible, and the provision is not smooth (non-current provision).

$$\frac{LTACC_{i,t}}{TA_{i,t-1}} = \eta_1 \left(\frac{1}{TA_{i,t-1}} \right) + \eta_2 \left(\frac{PPE_{i,t}}{TAi,t-1} \right) + \eta_3 \left(\frac{INT_{i,t}}{TA_{i,t-1}} \right) + \eta_4 \left(\frac{NCP_{i,t}}{TA_{i,t-1}} \right) + \varepsilon_{i,t} \tag{8}$$

Where: $LTACC_{i,t}$ = long-term accruals the company i in t (obtained from Equation 3); $TA_{i,t-1}$ = Total assets of company i in t-1; $PPE_{i,t}$ = gross value of land, buildings, and equipment companies i year t; $INT_{i,t}$ = Intangible company i end of year t; $NCP_{i,t}$ = Provision none the company i in t; and, $\varepsilon_{i,t}$ = error, company i in t.

The equals method and the method of calculating the total short-term discretionary accruals, still used in measuring the longterm discretionary accruals, LTDSCC:

$$\text{LTDACC}_{i,t} = \frac{LTAACC_{i,t}}{TA_{i,t-1}} - \left[h_1 \left(\frac{1}{TA_{i,t-1}} \right) + h_2 \left(\frac{PPE_{i,t}}{TA_{i,t-1}} \right) + h_3 \left(\frac{INT_{i,t}}{TA_{i,t-1}} \right) + h_4 \left(\frac{NCP_{i,t}}{TA_{i,t-1}} \right) \right] \tag{9}$$

All testing the relevance of the values in this study using the model Ohlson (1995). The model describes the market price (P) as a function of securities book value per stock sheet (BV) and earnings per shares.

$$P_{it} = \alpha_0 + \alpha_1 E_{it} + \alpha_2 BV_{it} + \tau_{it} \tag{10}$$

Where: P_{it} = stock price company i at the end of the third month of year t + 1; E_{it} = earnings before extraordinary item per shares of company i in t; BV_{it} = book value of equity shares of the company per sheet i year t; and τ_{it} = error term, company i in t.

From equation 10, α1 and α2 shows the relevance of earnings and book value respectively. The first hypothesis is guessed that earnings and book value have a value relevant. Therefore, from equation 11 koefisisien the α1 and α2 are supposed to be positive and significant value to indicate a positive relation between the price of stocks with earnings and book value. In relation to test the relevance of earnings and book value if there is practice management profit, then the model Ohlson (1995) extended to include dummy variables such as the following equation:

$$P_{it} = \alpha_0 + \alpha_1 D_{it} + \alpha_2 E_{it} + \alpha_3 E_{it} D_{it} + \alpha_4 BV_{it} + \alpha_5 BV_{it} D_{it} + \varpi it \tag{11}$$

D_{it} is a dummy variable and the value 1 (0) when a company is doing (not doing) earning management. Indicator of earning management obtained by way of dividing the sample on the basis of discretionary accruals for each industry into 4 groups or quartile. A group of samples at the top quartile (below) are categorized as category do (not doing) earning management. This procedure is also done to the short-term, long-term and discretionary accruals total. For companies that fall into the second and third quartile or middle, deliberately not included to get a wide enough gap between the companies indicated a profit with management do not (Whelan and McNamara, 2004). It is also intended to test results with greater precision and right on target.

Equation 11 are used to test hypotheses 2A, 2B, and 2C. α1 is the coefficient of the variable intercept were used to assess the relevance of each source of earning management (short-term and long-term discretionary accruals) are partial. Koefisisen α2 shows the relevance of earnings when there is no earning management, α3 instead shows the relevance of profit when earning management. Therefore, α3 + α2 shows total response against profits when there are earning management. α4 coefficient indicates the relevance of the book value when there is no earning management, α5 instead. α4 + α5 in equation 11 is the total response against book value when there are earning

management. From the definition of the meaning of the coefficients, according to hypotheses 2A, 2B, and 2 c, then the expected coefficients α3 is negative that means a decline in profit and value relevance α5 is positive which shows the increasing relevance of the book value.

The third hypothesis to test, insert a dummy variables separately according to each source of earning management, i.e. short-term discretionary accruals and long-term discretionary accruals are as follows:

$$P_{i,t} = \alpha_0 + \alpha_1 S_{it} + \alpha_2 L_{it} + \alpha_3 E_{it} + \alpha_4 E_{it} S_{it} + \alpha_5 E_{it} L_{it} + \alpha_6 BV_{it} + \alpha_7 BV_{it} S_{it} + \alpha_8 BV_{it} L_{it} + \zeta_{it} \qquad (12)$$

S_{it} value 1 (0) if there is (there is no) indication of earning management through short-term discretionary accruals. The variable L_{it} is also worth 1 (0) if there is (not) the indication earning management through long-term discretionary accruals. The coefficients α3 in equation 12 shows the relevance of earnings when there is no earning management. The relevance of the profits when there are earning management through discretionary accruals short-term and long-term discretionary accruals is indicated by the coefficient of α4 and α5 consecutively. Coefficient α6 shows the relevance of the book value when there is no earning management, while the α7 and α8 respectively indicate the relevance of the book value when there are earning management through discretionary accruals shortterm and long-term discretionary accruals.

In accordance with the third hypothesis, then the expected coefficient α5 on equation 12 is smaller than the coefficient α4, this indicates that the relevance of profit decreases when earning management done through long-term discretionary accruals than shortterm discretionary accruals. Otherwise the expected coefficient α8 greater than the coefficient α7, because a positive expected value. Wald test used to test the magnitude α5 < α4 and α8 > α7

4. Results
4.1. Descriptive Statistics

Table 2 shows the descriptive statistics of the variables of study samples as much as 274 companies or total 822 observation for three years. Reduction of the number of the sample after eliminating enterprises that do not have values for the dummy variable, or a company that is not clear whether the company doing earning management or not, and when do earning management, whether on a short-term, long-term or both, so that the obtained sample categories as listed in Table 2.

Table-2. Descriptive Statistics Of The Variables Research

Whole company = 274						
	P		E		BV	
Mean	1922.05298		0.171116088		1.263221923	
SD	7646.51455		0.80551069		3.716589628	
Min.	20		-0.99072936		-1.922115744	
Max.	80000		6.257617466		30.79389641	
(1) There is no earning Management (n = 60)				(2) Earning Management Short and Long-term (n = 55)		
	P	E	BV	P	E	BV
Mean	1499.655	-0.027	0.829	523.75	0.076	0.423
SD	3562	0.323	1.948	484.30	0.134	0.334
Min.	20	-0.991	-1.642	35	-0.072	0.061
Max.	17800	1.171	6.398	2100	0.597	1.139
(3) Earning Management Short-term (n = 83)				(2) Earning Management Long-term (n = 76)		
	P	E	BV	P	E	BV
Mean	2325.769	0.217	1.855	2461.52	0.294	1.305
SD	11072.095	0.877	5.591	6804.27	1.082	2.699
Min.	25	-0.562	-1.922	20	-0.359	-1.921
Max.	80000	4.999	30.794	40000	6.258	12.734

Source: Author

Note: E = earnings before extraordinary item per sheet at time t; BV = book value of equity per sheet at time t; and P = the share price per sheet at time t + 3 months

5. Analysis

Table 2 shows that in the outline of the share price, profit per sheet, and the book value of equity per sheet on companies that don't do earning management. Companies that do earning management through short-term or long-term discretionary accruals have an average value of smaller, but greater than the value of the company that did the earning management through both short and longterm except profit value. This is extremely surprising given in theory, earning management will result in a decline in the stock price or only occur in poorly performing companies as has been evidenced Whelan and McNamara (2004). Thus, the descriptive results of this in contrast to the results of previous research. In addition, the difference of the results with a previous study also found companies do earning management in long-term. The stock price and earnings per share at the company has greater value than the

company through earning management short-term, unless the book value of equity. This once again shows that there is a difference in the role of short-term and long-term discretionary accruals.

Table-3. The correlation research of the variable with the stock price

Sample	Correlation with stock price		
	EPS	BVPS	n
There is no Earning Management	0.676***	0.713***	60
Earning management through Short and long-term	0.240	0.573***	55
Earning management through Short-term	0.784***	0.751***	83
Earning-Management Through long-term	0.942***	0.891***	76
All Companies	0.792***	0.773***	274

Source: Author
Note: *** significant at 1% (1-tailed)

As indicated by the components of the standard deviation, the descriptive data in Table 2 also shows the difference in the pattern with the results of previous research findings. On the company without earning management they would have a value of standard deviation smaller compared with companies that do earning management through short-term or long-term, except for companies with a combined earning management through short and long-term discretionary accruals. Thus, the expression of that company by earning management performs smoothing profits (smooth) to show stability to the market is not proven at this descriptive data.

Table 3 shows the value of the correlation of stock price with profit and share price per sheet with book value of equity per sheet. When there is no earning management, Table 3 shows the equity book value per sheet shows a stronger correlation with stock prices ($\rho = 0.713$; $p = 0.000$) than profit per sheet ($\rho = 0.676$; $p = 0.000$). Meanwhile, in company with earning management through short-term and long-term results of correlation showed precisely the opposite result. Profit per sheet has a value which is smaller but not insignificant ($\rho = 0.240$; $p = 0.129$) compared to the book value of equity per sheet ($\rho = 0.573$; $p = 0.002$). This is in accordance with the original allegation that the earning management reduces the relevance of earnings and increase the relevance of the book value of equity.

At companies that do earning management through short-term discretionary accruals, found a correlation with the stock price profit ($\rho = 0.784$; $p = 0.000$) larger than the correlation of equity book value per sheet ($\rho = 0.751$; $p = 0.000$). These values are also larger at companies without earning management. This indicates the earning management through short-term discretionary accruals are not making profit and the relevance of the book value of equity is weakened, but increasingly on the rise. The same pattern is also found in the company earning long-term management through discretionary accruals, where stronger profits correlation with stock prices ($\rho = 0.942$; $p = 0.000$) compared to the book value of equity and stock prices ($\rho = 0.891$; $p = 0.000$) and stronger than on the company without earning management.

Table-4. Estimation of coefficient variables dependent

the Coefficient (t-statistics)	The Test of Hypothesis				
	1	2A	2B	2C	3
α1	5864,219	-572,433	-482,852	-1197,393	-573,163
	(20,849)***	(-1,151)	(-1,016)	(-3,820)***	(-0,706)
α2	198,595	4370,063	9449,465	9518,74	-384,388
	(3,407)***	(-6,913)***	(13,661)***	(18,854)***	(-0,461)
α3	-	325,879	-5031,373	-4196,102	5724,104
		(-0,386)	(-4,872)***	(-6,619)***	(2,241)***
α4	-	546,448	-15,804	-11,291	2103,612
		(3,307)***	(-0,227)	(-0,249)	(0,700)
α5	-	82,704	512,893	54,221	-1619,564
		(0,391)	(1,830)*	(0,412)	(-0,593)
α6	-	-	-	-	937,494
					(2,093)**
α7	-	-	-	-	-602,711
					(-1,152)
α8	-	-	-	-	-115,26
					(-0,185)
Adj R^2	0,700	0,697	0,660	0,857	0,674
N	822	428	418	425	274

Source: Author
Note: *, **, *** significant at 10%, 5%, 1%, two tailed in a row
1 is the relevance of earnings and book value of $P_t = \alpha_0 + \alpha_1 E_t + \alpha_2 BV_t + \tau_t$
2A, **2B** and **2C** is earning management through short-term, long-term or total discretionary accruals based quartile with the formula $P_t = \alpha_0 + \alpha_1 D_t + \alpha_2 E_t + \alpha_3 E_t D_t + \alpha_4 BV_t + \alpha_5 BV_t D_t + \varpi_t$
3 is the earning management through short-term and long-term discretionary accruals $P_{i,t} = \alpha_0 + \alpha_1 S_t + \alpha_2 L_t + \alpha_3 E_t + \alpha_4 E_t S_t + \alpha_5 E_t L_t + \alpha_6 BV_t + \alpha_7 BV_t S_t + \alpha_8 BV_t L_t + \zeta_t$

Table 4 shows the results of the regression equation 10 by using a sample of the entire company for 3 years. In hypothesis 1 has mentioned that the earnings and book value of equity value is relevant. The value of the $\alpha 1$ and $\alpha 2$ are continously undertook to describe the relevance of earnings and book value of equity. The results in Table 4 show that earnings and book value does have a relevant value because each coefficient showed positive and significant ($\alpha 1$ = 5864.219; p = 0.000; $\alpha 2$ = 198.595; p = 0.001). Thus, the hypothesis 1 was confirmed. Adjusted R^2 values were found to have a value higher than previous studies. This result shows earnings per sheet and book value per sheet has a pretty vital role in the process of company valuation in Indonesia.

The test results also 2A hypothesis is shown in Table 4. Testing done on samples of the 428 companies for three years which they do earning management only through the short-term discretionary accruals. The results of equation 11 shows no significance coefficient dummy ($\alpha 1$ =-572.433; p = 0.251) and indicated that earning management through discretionary accruals short-term has no relevant value. Coefficient of $\alpha 2$ definitive market reaction against the profits without any earning management ($\alpha 2$ = 4370.063; p = 0.000). For companies with earning management through short-term discretionary accruals is shown by the coefficients $\alpha 3$. In accordance with the original allegations, the company with the earning management will reduce the relevance of profit. This is indicated with a negative-valued coefficients $\alpha 3$ ($\alpha 3$ = -325.879; p = 0,700). However, the coefficient is not significant. Market reaction against the equity book value when there is no earning management shown by coefficient of $\alpha 4$, and showed positive and significant results ($\alpha 4$ = 546.448; p = 0.001).

Subsequent market reaction against the book value on a company by earning management depicted on the coefficient showed the $\alpha 5$ results not significant though it is positive ($\alpha 5$ = 82.704; p = 0,696). By looking at $\alpha 3$ and $\alpha 5$ coefficient in equation 11 in pooled can be inferred that the earning management reduces the relevance of profit value but not significant, nor did it cause increased relevance of equity book value significantly. Thus hypotheses 2A which stated that the relevance of profit will decrease and vice versa the relevance of the book value of equity will increase when companies do earning management through short-term discretionary accruals fail endorsed. With still using equation 11, the hypothesis 2B tested for a sample of 418 firms that do earning management through long-term discretionary accruals. The results in table 4 show that the coefficient D ($\alpha 1$ =-482.852; p = 0.311) that are not significant indicates that earning long-term management through discretionary accruals has no relevant value. The market responded positively and significantly to profit when companies don't do earning management ($\alpha 2$ = 9449.465; p = 0.000). However not the case with the book value of equity that is negative and not significant ($\alpha 4$ =-15.804, p = 0,821). To determine if the hypothesis is proven or not 2B is analyzing the coefficients $\alpha 3$ and $\alpha 5$. Table 4 shows the coefficients $\alpha 3$ is negative and significant which means earning management led to a decline in profit of relevance ($\alpha 3$ =-5031.373 p = 0.000).

Next on the coefficient showed the value of positive $\alpha 5$ and significant even though only at a rate of 10% ($\alpha 5$ = 512.893; p = 0,069). Thus the hypothesis 2B proved because it supports the statement that the relevance of the profit will be reduced and the relevance of the book value of equity will increase when companies do earning management through long-term discretionary accruals. Table 4 shows the results of the regression equation 11 against 425 companies that do earning management through discretionary accruals total. Table 4 shows the results of different results two test the hypotheses in advance. Coefficient D benilai significant ($\alpha 1$ =-1,197,393, p = 0.000). However, since the coefficients $\alpha 1$ is negative, it means earning management through discretionary accruals total is not relevant.

Positive values indicate profit coefficients are significant when there is no earning management and decreased relevance which is also significant when those companies involved in earning management ($\alpha 2$ = 9518.74; p = 0.000; $\alpha 3$ =-4196.102; p = 0.000). Those results were not found in the book value of the equity component. The second coefficient of the component value is not significant ($\alpha 4$ =-11.291; p = 0.804; o = $\alpha 5$ 54.221; p = 0,681). This means the equity book value decreased when there is no earning management but not significant, but the relevance is precisely the book value has increased although not significant when there are earning management. This can be interpreted that when companies don't do earning management, profit per sheet became more noticed by market instruments compared to the book value of equity in assessing the company's performance.

Overall results in Table 4 can be taken to mean that the relevance of profit is indeed a significant decline when companies do earning management but are not followed by an increase in the relevance of the book value of equity is significant. Thus, hypothesis 2C not proven because it does not support the hypothesis that 2C mentioned that the relevance of profit will decrease and the relevance of the book value of equity will be increased when the management do earning management through discretionary accruals total. Table 4 shows the regression equation 12 on a sample of 274 companies that do earning management through both short-term and long-term discretionary accruals. From Table 4 to see that spider has a positive value relevance and significant at the 5% level when there is no earning management either through short-term or long-term ($\alpha 3$ = 5724.104; p = 0,027). However, when there are earning management either through short-term or long-term, the relevance of the profit decline but not significant ($\alpha 4$ = 2103.612; p = 0.485; $\alpha 5$ =-1619.564; p = 0,554). Market reaction against the equity book value when there is no earning management also is positive and significant at the 5% level ($\varphi 6$ = 937.494; p = 0,038). Same is the case with the coefficient of the interaction of variable profits ($\alpha 4$ and $\alpha 5$) insignificant interaction coefficient, the book value is also experiencing the same thing ($\alpha 7$ =-602.711; p = 0,251). This means the book value of equity is indeed decline though not significant when companies do earning management through short-term. Values $\alpha 8$ = -115.26; p = 0,853, means also does not cause significant declines against the relevance of the book value of equity when the company do earning management through long-term discretionary accruals. From the data in Table 4 can be taken to

mean that the company that did the earning management either through short-term or long-term discretionary accruals, does not have a meaningful impact against the relevance of profit and equity book value either in short-term or long-term. Thus, the results fail to support the third hypothesis initially expected value smaller than α5 α4 and α8 greater than α7.

Therefore testing with Wald test to determine where more impact between long term and short term accruals are not necessary. The difference in the results of this research with Whelan and McNamara (2004) may be caused by the inability of market participants in Indonesia to distinguish forms of earning management. In addition, no significance test results on long-term discretionary accruals that are contrary to the results of testing on the hypothesis 2B, can be caused by offsets from the results of testing on short-term discretionary accruals that shows results that are not significant.

6. Conclusion

The purpose of this study was to examine the relevance of earnings and book value of equity in the context of those companies in Indonesia. As has been previously hypothesized that the earning management will reduce the relevance of profit, but will cause increased relevance of the book value of equity of a company. Earning management through short-term discretionary accruals is proven not to have any impact against the relevance of earnings as well as the relevance of the book value. However, the Earning management proven to result in a decline in the relevance of profit value, but has no impact on the book value of equity, when companies do earning management through discretionary accruals total.

When the test was conducted jointly between the earning management through short-term and long-term discretionary accruals as shown on the three hypothesis testing, both of which do not have a significant impact against the relevance of equity book value or earnings. Thus, it could not be found or determined which management earning tools have the greatest impact towards the relevance of earnings and book value.

The decline in the relevance of profit when companies do earning management as shown in hypothesis testing 2B and 2C may be caused by the market's assumption that when companies do earning management, then the reported profit figures cannot reflect the true value so that the number can not be trusted. However, no significance relevance of profit on testing hypotheses 2A and 3, may be caused by the inability of the market to differentiate between tools in the earning management in short-term or long-term. In the meantime, the impact on the value of the book is not significant as shown in testing hypotheses 2A, 2C, and 3 that can be caused by the market's assumption that a profit is still a prima donna as a gauge the company's performance, because after all the profit oriented organization whose main purpose is to get the highest possible profit.

Although the research has not been able to give a more concrete about the source of earning management which has the greatest influence against the relevance of earnings and book value of equity, with testing in isolation can be seen that the earning management through discretionary accruals long-term has the biggest impact against the relevance of earnings and book value of equity. This is proven by the hypothesis 2B. These results corroborate previous research more and that there is a difference between the role of each source or tools to manage earnings. One of the reasons that might cause the market to respond more strongly towards earning long-term management through discretionary accruals is the assumption that earning the kind of management tend to be more at risk cannot be returned due to jagka a long time, despite the inability of the market to distinguish short and long-term discretionary accruals.

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