

Conference Paper

Corporate Governance, Earnings Management, and Economic Value Added - Indonesian Evidence

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Abstract

This paper describes the research which investigates the effect of earnings management and corporate governance (CG) on economic value added (EVA) in companies listed on the Indonesia Stock Exchange for the fiscal year ending 31 December 2015 to 2017. Earnings management used in this study is accrual earnings management (MLA) as measured by the Modified Jones Model and real earnings management (MLR) as measured by management earnings operating cash flows. CG is measured by the CG index. Data is obtained by purposive sampling process and comes from secondary data both from the IDX and from the websites of each company. The research hypothesis was tested using generalized-least square (GLS). The results showed that accrual earnings management had a positive effect on EVA while real earnings management had a negative effect on EVA. The results also show that CG has a negative effect on EVA if tested together with MLA, but CG does not affect EVA if tested together with MLR. This research is expected to contribute to the existing literature by completing and enriching findings on the effect of earnings management and corporate governance on EVA.

Keywords: EVA, CG, accrual earnings management, real earnings management.

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1. Background

This study investigates the effect of earnings management and corporate governance on economic value added (EVA) companies listed on the Indonesia Stock Exchange for 2016-2018. This research is motivated by the fact that EVA is still one measure of accurate corporate financial performances (Liu and Wang, 2017). EVA is calculated by subtracting net after-tax operating income with the yield between the weighted average capital cost and investment (Brigham and Daves, 2013). The numbers used to calculate EVA come from accounting reports which are the main objects of earnings management practices. Therefore, researchers suspect that the results of EVA calculations are influenced by earnings management practices.

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Conventional accounting is used to measure company performance (Allgood and Farrell, 2003; Baily and Helfat, 2003; Neumann and Voetmann, 2005; Peng, 2004; Shen and Cannella, 2003). These measurements are determined in accordance with generally accepted accounting principles (GAAP), which require the implementation of the principles of conservatism or prudence in the preparation of financial statements. EVA is an estimate of the company's economic profit that is used to measure the company's financial performance. The basic concept of EVA is that economic profit is obtained if the business results (return) of the company are higher than the costs of the company's capital (Mahdavi and Rastegari, 2007). Therefore, EVA is used to measure shareholder value (Kaur and Narang, 2008).

Earnings management occurs when managers make a judgment in financial reporting and manage transactions to polish financial statements (Healy and Wahlen, 1999). Previous research focused on determining whether there is earnings management and identifying the motivation to do earnings management (Chang, Hsin and Hou, 2013; Datta, Iskandar-Datta and Singh, 2013; Farrell, Unlu and Yu, 2014; Habib, Bhuiyan and Islam, 2013; Hansen, 2010; Jha, 2013; Karampinis and Hevas, 2013; Kim and Sohn, 2013; Lin and Wu, 2014; Nagata, 2013; Salteh and Valipour, 2012; Shu and Chiang, 2014; Zhang and He, 2013). Accrual is the main tool for manipulating earnings figures because accruals are one component of profits that are not shown in the current period of cash flow information (Hasan and Ahmed, 2012). Therefore, accruals are used as the main instruments by management to manage earnings calculations (Bergstresser and Philippon, 2006). The practice of earnings management has long been carried out. One of the main motivations for conducting earnings management is a bonus scheme. Managers who want to get bonuses will avoid accounting methods that report low profits. Managers use accounting profits to determine the amount of bonus, so they tend to choose accounting policies that can maximize profits (Scott, 2015).

Although the issue of earnings management has been studied for a long time, the application of new accounting standards, which is International Financial Accounting Standard (IFRS) and the issuance of new rules on corporate governance have an effect on the quality of accounting information (Krismiaji, Aryani, and Suhardjanto, 2016) and ultimately EVA calculation based on accounting data. The adoption of IFRS, one of the high-quality accounting standards, will have an impact on the quality of accounting information produced (Krismiaji et al., 2016). This happens because IFRS uses a principle base and a fair value approach (revaluation model) in evaluating financial statement items. In the past, when companies used rule-based accounting standards that required companies to apply standards according to rules, many companies performed earnings

management practices, so the implementation of principle-based accounting standards was very open, the possibility of earnings management practices became more prevalent. This condition can affect EVA differently than before. The development of the business environment both on an international and national scale also encourages regulatory agencies to issue several regulations that compel companies to implement corporate governance. The application of the principles of corporate governance is expected to minimize business practices that are harmful to shareholders, which in turn, companies are able to produce financial statements which describe the company's financial performance which is further reflected in EVA.

Based on the conditions above, there is an opportunity to carry out further and in-depth research on the effect of earnings management and corporate governance on EVA in the years post IFRS implementation and regulations on corporate governance within the company listed on the Indonesia stock exchange. Therefore, researchers formulated the research questions as follows:

RQ1. How do earnings management and corporate governance influence the economic value added (EVA) companies listed on the Indonesia Stock Exchange?

2. Literature Review and Hypotheses Development

2.1. Literature Review.

This study uses agency theory. This theory explains and predicts the behavior of agents and principals. This theory provides a framework for organizing relationships between agents and principals through a contract mechanism that regulates the way principals assign agents by delegating corporate management responsibilities (Jensen and Meckling, 1976). The agent is appointed to work for the interests of the principal. Although between agents and principals are bound to behave cooperatively to achieve their goals, in practice, they have different and even conflicting goals and behaviors (Beaudoin, 2008). The conflict between them arises when agents and principals have different objectives because agency theory is based on the proposition of separation between ownership and control. This separation will provide incentives for managers to pursue activities that benefit themselves at the expense of the principal's interests. The basic premise of this theory is that if between groups that are related to maximizing their interests, then it is reasonable if the agent does not always act the best for the benefit of the principal. Based on the theory, management may perform actions, including earnings management, which affect financial performance, including EVA,

Stewart (1991) revised the calculation of residual income and made a methodology for calculating EVA. Parvaei and Farhadi (2013) report that EVA initially produces low predictions for performance measurement compared to measurements using return on equity (ROE), return on assets (ROA) or other ratios. Huynh, Gong, and Nguyen (2013) examined the integration of activity-based costing (ABC) with EVA as an approach to measuring company performance. They prove that the EVA-ABC method is an innovation in management accounting approaches. Burja and Burja (2010) reveal that EVA and management resources influence to each other. Moradi, Ghomian and Fard (2012) indicate that earnings, firm size, ability to develop and non-tangible assets have a significant positive effect on EVA, while the capital structure has a negative effect on EVA. Nikbakht and Moghimi (2011) show that the debt ratio is inversely related to EVA in the metallic non-mineral industry, machine construction, and equipment industry. Altendorfer and Jodlbauer (2011) indicate a slight change in personnel in the company's operations increases EVA, whereas Haque et al (2013) reported that dividend payments have a significant negative effect on EVA. This happens because the shareholder value theory does not support the distribution of profits in the form of dividends since it shows inefficiency in an effort to maximize the welfare of shareholders.

Earnings management can be done in two ways, which are accrual earnings management and real earnings management. Accrual earnings management can be performed by managing accrual earnings or earnings that have not been received cash. This part is called the discretionary accruals (DA) which allowed by the accounting standards to achieve the desired earnings level (Liu and Wang, 2017). Discretionary accrual is a component of accrual accounting that includes estimated elements made by managers which existence is still unclear. Discretionary accruals can be misleading if the calculation is performed by distorting public information for personal gain. Dechow, Saloan, and Sweeney (1995), Islam, Ali and Ahmad (2011) and Chang et al (2013) provide a model for measuring DA.

The second way to perform earnings management is to change the time and size in operating decisions. This action deviates from normal business practices with the aim of misleading shareholders about the company's performance. This type of earnings management is called real earnings management (REM). Based on a study of REM performed by Cohen, Dey, and Lys (2008) and Roychowdhury (2006), there is three types of REM activity: (1) sales manipulation, (2) overproduction, (3) reduction in discretionary expenses.

Accounting theory describes motivations for earnings management, such as mergers and acquisitions (Francoeur, Amar, and Rakoto, 2012), the effect of currency

exchange rates (Chang, Hsin, and Hou, 2013), research and development (Zhang and He, 2013), pricing (Datta, Datta, and Singh, 2013), financial difficulties (Habib, B huiyan, and Islam, 2013), linkage boards (Chiu, Teoh, and Tian, 2013), free cash flows (Kangarluei, Motavasse, and Abodlai 2011) stock return (Wu, Lin and Fang, 2012), company's profitability (Anjum, Saif, and Malik, 2012), IPO (Nagata, 2013), equity-based compensation (Essid, 2012), Bond offering (Caton, Chiyachantana, Chua, and Goh, 2011), limited stock offerings (He, Yang, and Guan, 2011), taxes (Karampinis and Hevas, 2013), stock offerings (Shu and Cang, 2014), debt agreements (Jha, 2013), financing restrictions (Farell, Unlu, and Yu, 2014), debt analysis (Degeorge, Ding, Jean, and Stollowy, 2013), profit targets (Hansen 2010) and corporate governance (Lin and Wu, 2014).

Datta et al. (2013) revealed that companies that do not have the ability to determine prices in competitive industries often make accrual earnings reporting policies. Habib et al. (2011) suggested the companies that are declining tend to do more earnings management than the stable companies. Kangarluei, Motavasse, and Abodllahi (2011) state that there is a positive relationship between earnings management and free cash flow, and this relationship is more significant for companies that have greater free cash flow. This indicates that the free cash flow can be motivated to perform earnings management. Wu, Lin, and Fang (2012) report a negative relationship between earnings management and stock returns for companies in Taiwan. They link these phenomena with investment decisions made by shareholders who are traditional very attentive to the quality of the company's financial statements. Anjum et al. (2012) used the modified Jones model to calculate the firm's discretionary accruals from various sectors. The results show that earnings management has a negative effect on company profitability.

Caton, Chiyachantana, Chua, and Goh (2011) found that companies that will issue shares tend to manipulate earnings performance by increasing them before bidding, while He, Yang, and Guan (2011) report that earnings management tend to make investors too optimistic in a direct share placement. Moreover, they show that the increase in accrual accounting earnings made during the bidding directly predicts the bad performance of the long-term stock. Hansen (2010) reports that companies prefer to avoid loss targets while Karampinis and Hevas (2013) report that tax liabilities are a significant negative determinant of discretionary accruals in the pre IFRS implementation period.

Corporate governance is a mechanism used to reduce agency costs that arise as a result of conflicts of interest between managers (agents) and shareholders (principals). This conflict arises because of the separation between ownership and control of the company's operations. This separation provides an opportunity for managers to make

decisions that are not in accordance with the best interests of shareholders. In other words, managers can use the authority to control companies to make decisions that benefit their own managers at the expense of the interests of shareholders. Kang and Kim (2011) state that management may affect reported earnings by choosing a particular accounting method or by making operating decisions. One discretionary decision to manipulate reported earnings is manipulating accruals.

2.2. Hypotheses Development

2.2.1. Earnings Management and EVA

Salteh and Valipour (2012) stated there was a significant negative correlation between discretionary accruals and the weighted average cost of capital. Managers who try to avoid losses have greater motivation to increase profits to show the firm high growth so they can show the impressive picture of the business. This results in a decrease in the weighted average cost of capital. Wang, Jiang, Liu, and Wang (2015) show that managers want investors not to identify earnings management through discretion. Therefore, in order to provide a good picture for investors such as reducing capital costs, they tend to make discretionary accrual earnings management by increasing the amount EVA.

Kim and Sohn (2013) stated that cost of capital positively associated with REM levels in order to manipulate the firm's earnings. They found that real earnings management increase the cost of capital, because (1) REM included in earnings due to the effect of accrual reporting and distort firm's cash flow through manipulation real operating activities; (2) REM is more difficult to detect than accrual earnings management. Consequently, REM is less noticed by external supervision. Moreover, REM is more difficult to detect using internal monitoring such as a board of directors or an audit committee. Because real earnings management may not be limited by effective governance mechanisms, external investors have difficulty to evaluate the company performance. Brown and Higgins (2001) also observed that REM positively associated with capital costs because real earnings management distorts the company's fundamentals. In addition, REM will increase the rate of earnings errors and reduce investors' expectations of future levels of cash flow. Therefore managers try to perform earnings management using REM, which might increase the cost of capital and in turn reduce EVA. Based on the study, the research hypothesis is formulated as follows.

H_{1a} : Accrual earnings management positively affects EVA.

H_{1b} : Real earnings management has negatively affects EVA.

2.2.2. Corporate Governance and EVA

Teen (2006) explain that corporate governance is not only about compliance with the laws, regulations, standards, and ethics, but also associated with improved performance. This opinion is in line with the results of research conducted by Klapper and Love (2004); Durnev and Kim (2005); Black, Jang, and Kim (2006) who found a positive relationship between corporate governance index and company value. Corporate governance represents a serious attempt to give a firm commitment to achieving corporate goals. Corporate governance will improve the firm's value since the main purpose of CG is to guarantee companies to operate efficiently and achieve the main objective which is to maximize the shareholder value (Zheka, 2006). Bagath and Bolton (2008) explained that effective CG would reduce the control rights granted by shareholders for creditors and managers. CG will improve the possibility of managers to invest in projects with high return rates. The company will be better managed so that the company's performance increases. Based on the description above, the research hypothesis is formulated as follows.

H₂: Corporate governance positively affects EVA

3. Research methods

This research uses data from companies listed on the Indonesia Stock Exchange (IDX) from 2015 to 2017. The main data source is the company's annual report, the Indonesian Capital Market Directory (ICMD), IDX Database, and company websites. The sample was chosen by purposive sampling method. The criteria used in purposive sampling are (1) the company is listed on the IDX for three consecutive years namely 2015-2017; (2) the company has complete data needed in this study; (3) the company is not a financial company.

3.1. Variable definitions and measurements

This study used two measures of earnings management, namely accrual earnings management, and real earnings management. Accrual earnings management is measured by discretionary accruals and estimated by the Modified Jones Model (Dechow, 1995) in equation (1) as follows:

$$TAC_{it} = \alpha_{1,it} \left(\frac{1}{TA_{i,t-1}} \right) + \alpha_{2it} \frac{(\Delta Rev_{it} - \Delta AR_{it})}{TA_{i,t-1}} + \alpha_{3t} \frac{PPE_{it}}{TA_{i,t-1}} + \epsilon_{it} \quad (1)$$

Where TAC_{it} is the total accruals for firm i , for year t scaled by total assets for year $t-1$; TA_{it-1} is the total assets for year $t-1$; ΔREV_{it} are revenues for firm i , for year t less revenues for firm i for year $t-1$ scaled by total assets for year $t-1$; ΔREC_{it} are receivables for firm i for year t less receivables for firm i for year $t-1$, scaled by total assets for year $t-1$; and PPE_{it} gross property plant and equipment for firm i for year t scaled by total assets for year $t-1$ and ϵ_{it} is the error term. Discretionary accruals (DA) for year t are estimated as the absolute values of residuals from the cross-sectional ordinary least-square (OLS) estimates of Equation (1). The value of absolute discretionary accruals (ABSDA) is a proxy of accrual earnings management (AEM). ABSDA is an inverse measure AEM, therefore the lower ABSDA, the higher the AEM.

Real earnings management (REM) is developed by Roychowdhury (2006) to estimate the type of real business activity which is reflected in the operating cash flow, production expenses and discretionary expenditure. Models 2 - 4 are used to estimate values \boxtimes_n the reverse measure for REM. The models are as follows:

$$CFO_t/A_{t-1} = \alpha_0 + \alpha_1(1/A_{t-1}) + \beta_1(S_t/A_{t-1}) + \beta_2(\Delta S_t/A_{t-1}) + \epsilon_t \quad (2)$$

$$PROD_t/A_{t-1} = \alpha_0 + \alpha_1(1/A_{t-1}) + \beta_1(S_t/A_{t-1}) + \beta_2(\Delta S_t/A_{t-1}) + \beta_3(\Delta S_{t-1}/A_{t-1}) + \epsilon_t \quad (3)$$

$$DISEXP_t/A_{t-1} = \alpha_0 + \alpha_1(1/A_{t-1}) + \beta(S_{t-1}/A_{t-1}) + \epsilon_t \quad (4)$$

Where:

CFO_t/A_{t-1} : Operating cash flows for the year t scaled by total assets for year $t-1$.

$\alpha_1(1/A_{t-1})$: Intercept scaled by total assets for year $t-1$.

S_t/A_{t-1} : Sales revenue in the year t scaled by total assets for year $t-1$.

$\Delta S_t/A_{t-1}$: Sales revenue in year t minus sales revenue in year $t-1$ scaled by total assets for year $t-1$.

$PROD_t/A_{t-1}$: Production costs in the year t scaled by total assets for year $t-1$, where $PROD_t = COGS_t + \Delta INV_t$

$\Delta S_{t-1}/A_{t-1}$: Change of sales revenue in year $t-1$ scaled by total assets for year $t-1$.

$DISEXP_t/A_{t-1}$: Discretionary expenditures in year t scaled by total assets for year $t-1$.

S_{t-1}/A_{t-1} : Sales revenue in the year $t-1$ scaled by total assets for year $t-1$..

ϵ_t : Error term year t .

Regression equation (2), (3), and (4) results in normal operating cash flows, normal production costs, and normal discretionary expenditures. Since this research needs

abnormal operating cash flows, abnormal production costs, and abnormal discretionary expenditures, they must be calculated by scaling actual operating cash flows, actual production costs, and actual discretionary expenditures with previous year's total asset minus normal operating cash flows, normal production costs, and normal discretionary expenditures. Regression equations (2), (3), and (4) produce normal operating cash flows, normal production costs, and normal discretionary expenditures. Because this study requires abnormal operating cash flows, abnormal production expenses, and abnormal discretionary expenditures, these abnormal numbers must be calculated by absolutizing the residual value in equation (2), equation (3), and equation (4). This study uses one measure of real earnings management, which is cash flow earnings management. Another independent variable used in this study is corporate governance which is measured using the CG index.

The dependent variable in this study is EVA which is calculated by the following formula.

$$EVA_{it} = NOPAT_{it} - (WACC_{it} * CI_{it}) \quad (5)$$

Where NOPAT is net operating profit after tax, WACC is Weighted average capital costs, and CI is equity plus long term liability in the beginning period.

This study used three control variables which are a capital structure (DEBT), profitability (ROE), and the company size (SIZE). This refers to the results of research conducted by Moradi, Ghomian, and Fard (2012) who found that capital structure, profitability, and company size had a significant effect on EVA.

3.2. Model Specifications

To test hypotheses 1a and 2, a regression model (6) is used as follows:

$$EVA_{it} = \alpha_{it} + \beta_1 MLA_{it} + \beta_2 CG + \beta_3 DEBT_{it} + \beta_4 ROE_{it} + \beta_5 Size_{it} + \varepsilon_{it} \quad (6)$$

To test hypotheses 1b and 2, equation (7) is used as follows

$$EVA_{it} = \alpha_{it} + \beta_1 MLR_{it} + \beta_2 CG + \beta_3 DEBT_{it} + \beta_4 ROE_{it} + \beta_5 Size_{it} + \varepsilon_{it} \quad (7)$$

Where EVA_{it} is the economic value added for firm i in the year of t , MLA_{it} is accrual earnings management for firm i in the year of t , MLR_{it} is real earnings management for firm i in the year of t , $DEBT_{it}$ is capital structure as a control variable which is calculated by dividing total liabilities with total equity, ROE_{it} is a control variable which is calculated by dividing profit with total equity, and $Size_{it}$ is the firm's size as a control variable and calculated by log total assets.

4. Results of Analysis and Discussion

4.1. Univariate Analysis

Table 1 presents descriptive statistics for all variables used in this study. The results show that all variables used in the valuation model have a rational level of variation. EVA has a means of 12.93 with a standard deviation of 10.15. With a minimum value of -18.29 and a maximum value of 19.77, the EVA data range is not too diffuse so the possibility of having an outlier is very small. MLA has a means of 0.09 with a standard deviation of 3.84. With a minimum value of 0.00 and a maximum value of 74.73, the MLA data range is not too diffuse so there is a very small possibility of outliers. MLR has a means of 0.68 with a standard deviation of 0.81. With a minimum value of 0.00 and a maximum value of 10.39, the MLR data range is not too diffuse so that there is a very small outlier.

TABLE 1: Descriptive statistics.

	Median	Mean	Max	Min	Std.Dev
EVA	7.07	12.93	19.77	-18.29	10.15
ROE	0.18	11.04	616.31	-414.00	1550,56
Size	3.38	3.36	5.42	0.00	0.72
DEBT	0.89	0.77	51.43	-230.00	9.34
MLA	0.11	0.09	74,73	0.00	3.84
CG	0.43	0.43	0.59	0.32	0.07
MLR	0.33	0.68	10.39	0.00	0.81

4.2. Bivariate Analysis

Pearson and Spearman's correlation between variables is calculated and presented in Table 2. Testing of the correlation matrix for independent variables in Table 2 shows no correlation coefficient above 0.8. This shows that there is no multicollinearity problem (Gujarati, 2003). Variance inflation factors (VIF) are also tested and the results are still within acceptable limits.

4.3. Multivariate Analysis

Table 3 presents the results of a regression analysis to test the hypothesis. The regression results show that this model 6 is significant ($p < 0.01$) and explains about 17% of the

TABLE 2: Bivariate Correlation.

	EVA	ROE	Size	DEBT	MLA	CG
ROE	.004					
Size	.015	.095**				
DEBT	-.002	-.003	.072			
MLA	-.003	.005	.047	-.045		
CG	.029	.016	.036	-.086*	-.049	
MLR	-.004	.007	-.006	-.086*	.008	.027

** , * . The correlation is significant at 0.01 and 0.05 levels respectively (2-tailed).

relationship between the dependent variables and the independent variable. Similarly, model 7 has a statistically significant F value ($p < 0.01$) and explains approximately 28.5% of the relationship between the dependent variables and the independent variable. Table 3 shows the results of regression analysis to test the hypothesis. F value and adjusted R^2 of the regression model shows that the multiple regression model is statistically significant. However, there are several differences in the explanatory power of the various types of independent variables as indicated by adjusted R^2 . The number of variations described in Model 6 is 17 percent and for model 7 is 28.5 percent.

To test hypothesis 1a Model 6 is used. The variables tested are MLA which are the proxy for accrual earnings management. Table 6 in the Model 6 column shows that the value of the MLA coefficient is -6,477 and significant at the level of 1%. MLA is an inverse measure of earnings management. Therefore, if MLA falls then EVA increases. The regression results indicate that the value of the MLA coefficient is negative. This means that MLA has a positive effect on EVA. Thus, hypothesis 1a which states that accrual earnings management has a positive influence on EVA is proven and supported by empirical data.

$$EVA_{it} = \alpha_{it} + \beta_1 MLA_{it} + \beta_2 CG + \beta_3 DEBT_{it} + \beta_4 ROE_{it} + \beta_5 Size_{it} + \varepsilon_{it} \quad (8)$$

$$EVA_{it} = \alpha_{it} + \beta_1 MLR_{it} + \beta_2 CG + \beta_3 DEBT_{it} + \beta_4 ROE_{it} + \beta_5 Size_{it} + \varepsilon_{it} \quad (9)$$

To test hypothesis 1 b Model 7 is used. The variable tested is MLR which are proxy for real earnings management. Table 6 in the Model 7 column shows that the value of the MLR coefficient is 0.157 and significant at the level of 1%. MLR is an inverse measure of real earnings management. Therefore, if MLR increase then EVA has decreased. The regression results indicate that the value of the MLR coefficient is positif. This means that MLA has a negative effect on EVA. Thus, Hypothesis 1b stating that real earnings management negatively affects EVA is proven and supported by empirical data.

TABLE 3: Regression Analysis.

Variable	Model 6		t-Statistics	Model 7		
	Coefficient			Coefficient	t-Statistics	
Intercept	2.253	***	254.531	0.711	***	2.870
MLA	- 6.477	***	- 13.962			
MLR				0.157	***	33.711
CG	-4.168	***	-106.776	-1.101		-0.989
DEBT	- 0.252	** *	- 19.463	-0.212	* **	- 9.674
ROE	0.000	***	16.693	0.000	* **	13.682
Size	1.283	***	59.089	0.988	***	12.253
Adj. R ²	0.170			0.285		
F-statistics	21.168	***		10.185	***	

***, **, * show that coefficient is significant at 0.01, 0.05, and 0.1 respectively

Hypothesis 2 was tested using two models, namely model 6 which also tested the effect of accrual earnings management, and model 7 which simultaneously tested the effect of real earnings management. The variable tested on both models is CG which is a proxy for corporate governance. The column model 6 in Table 6 shows that the CG coefficient value is -4.168 and is significant at the level of 1%. This result means that CG has a negative effect on EVA. The column model 7 in Table 6 shows that the CG coefficient value is -1.101 and is not significant. This result means that CG does not affect EVA. Thus, hypothesis 2 which states that CG has a positive effect on EVA is rejected and is not supported by empirical data on research.

4.4. Discussion of Statistical Results

Calculation of EVA involves a component called cost of capital as a deduction from after-tax operating profit (NOPAT). If the cost of capital is high, the NOPAT subtraction is high and then the EVA value is low. Therefore, one way to increase EVA is to reduce the cost of capital. Research conducted by Salteh and Valipour (2012) finds a negative association between discretionary accruals and the weighted average cost of capital. This means that the higher earnings accrual management the lower the weighted average cost of capital. The low cost of capital, in turn, will increase the EVA number because the cost of capital is a deduction component in the calculation of EVA. Thus, the results of testing hypothesis 1a which state that accrual earnings management has a positive effect on EVA is in line with the results of research by Salteh and Valipour (2012), which

conducts research on the effect of accrual earnings management on the cost of capital, the deduction of EVA calculation.

The results of testing hypothesis 1b which found that real earnings management has a negative effect on EVA is also in line with previous studies conducted by Brown and Higgins (2001) and Kim and Sohn (2013). Their study found that the cost of capital positively related to REM levels. This means that real earnings management increases the cost of capital. Because the cost of capital is a deduction component in the calculation of EVA, automatically the REM increase will decrease the value of EVA. Some of the reasons why real earnings management is raising the cost of capital are as follows: (1) REM is included in earnings due to the effect of accrual reporting and distorts cash flow through manipulation of real operating activities; (2) REM is more difficult to detect because real earnings management may not be limited by effective corporate governance mechanisms, so external investors have difficulty in evaluating company performance.

The results of research data analysis do not support hypothesis 2 which states that corporate governance has a positive effect on EVA. Researchers suspect that this result is possibly caused by the measurement of corporate governance and financial performance that is different from previous studies. Although this study uses a CG index which is believed to be a complete and representative measurement instrument, it is also possible that the index contains elements that are not directly related to the company's financial performance. EVA is one measure of the company's financial performance. Calculation of EVA involves components which are also influenced by various variables. Cost of capital Component and operating profit components may be affected by earnings management (Kang and Kim, 2011; Kim and Sohn, 2013). Therefore, the effect of CG on EVA may be distorted by the relationship between EVA components and earnings management.

5. Conclusion

This study investigates the effect of earnings management and corporate governance on economic value added companies listed on the Indonesian stock exchange in 2015 to 2017. The results of the study show that accrual earnings management has a positive effect on economic value added, while real management has a negative effect on economic value added. Corporate governance has a negative effect on the economic value added if tested together with accrual earnings management but has no effect if tested together with real earnings management. With these results, hypotheses 1a

and 1b are accepted and supported by research empirical data, while hypothesis 2 is rejected and is not supported by empirical data on research.

This study has limitations in measuring corporate governance variables. Although the measurement of the CG variable is done using an index, which is believed to be better because it includes more CG elements, but it is unable to prove the hypothesis. Therefore future research needs to be carried out using CG measures that are more relevant to the measurement of company performance.

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