

# The Influence of *Bid-Ask Spread* and *Leverage* on Earnings Management with *Good Corporate Governance* as Moderating Variable



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## Abstract

This research was intended for obtaining an empirical evidence regarding good corporate governance to moderate the influence of bid-ask spread and leverage on earnings management. Earnings management was measured by the three proxies of real earnings management. It was included cash flow operation, production cost, and discretionary expenses. Bid-ask spread was measured by ask and bid price of the company's shares in given period. Leverage was measured by the ratio of total debt and assets. A good corporate governance was measured by score Corporate Governance Perception Index (CGPI). The research population was a company listed on the Indonesia Stock Exchange in 2008-2015. The sampling method is used a purposive sampling. The samples analyzed was 56 samples. An analytical technique is used Moderated Regression Analysis (MRA). The result showed that a good corporate governance did not moderate the influence of bid-ask spread on earnings management. However, a good corporate governance weakens the influence of leverage on earnings management.

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## 1. Introduction

Profit is one of the indicators in assessing company performance. Every company engaged in services, trade, and manufacturing mastering expectation in order to obtain profits at a certain level set as a company goal to be achieved. The information on profit is important. Due to it can help measure risk in investment and credit. The users focus on financial statements on information towards earnings, they sometimes ignore the process of creating the profit itself. This encourages management to take some action called earnings management or profit manipulation (Adnyana, 2008). The emergence of earnings management action is an implication of delegation of authority by *stakeholders*. This relationship can be regarded as a form of the agency relationship. Due to the contract between two parties (Jensen and Meckling, 1976).

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Jensen and Meckling (1976) argued that an agency relationship is a contract that occurs between the manager (agent) and the company owner (principal). Based on the agency theory, the management and the company principals have different interests due to the different objectives. It is called *agency problem* (Fama and Jensen, 1983). The motivated principal party contracts to prosper itself with ever-increasing profitability. The agent is motivated to maximize the fulfillment of their economic and psychological needs, e.g., in obtaining investment, loan, or compensation contract (Salno and Baridwan, 2000).

The phenomenon of earnings management has led to several cases in accounting reports unlike happened at the Japanese company Toshiba in 2015. The investigation results of independent accountants found that Toshiba made earnings management by overestimating profits was 151.8 billion yen or about USD \$ 1,22 billion over several years. Regarding these findings, Toshiba will have to restate a profit about 151.8 billion yen for the period between in April 2008 to March 2014.

Earning management is a management intervention in the process of preparing external financial reporting. Therefore, in order to increase or decrease accounting earnings in accordance with the interests of the implementation of earnings management (Schipper, 1989). Earnings management can be conducted through accrual policies as well as through real activities (Cohen et al., 2008). Accrual income management is the manager's behavior who play in the accrual component to determine earning amount. Earnings management through real activity focuses on three activities i.e., increased production, discretionary cost reduction, and sales management. Gunny (2005), Graham et al. (2005), Roychowdhury (2006), Zang (2007), Cohen et al. (2008), and Cohen and Zarowin (2010) found that managers have shifted from accrual earning management to real profit management after the Sarbanes-Oxley Act (SOA) period.

The agency conflicts that trigger the earnings management occurrence is also faced by capital market participants. The participants in the capital market interact in the capital market to realize the goal of buying or selling securities. Thus, the activities undertaken are influenced by information received either directly (public reports) or insider trading. An uncertainty faced by capital market participants is due to an imbalance of information or information asymmetry. It occurs when managers have access to information about the company prospect is not owned by an outsider. The imbalance, unlike information, leads to the emergence of *adverse selection* and *moral hazard behavior* in the form of management efforts to make earnings management (Rahmawati et al., 2006). The more internal information, the company mastering management than the shareholders and outside parties, the more chance the management to make earnings management. The magnitude of information imbalance faced by the capital market participants will be reflected in the *spread* that it is determined.

*Financial leverage* is the use of funds fixed-cost source. It is hoped in providing an additional higher profit than fixed expenses, resulting in increased shareholder value (Van Horn, 1997). The companies that have large debts are more likely to breach debt agreements than those with lower debt (Mardiyah, 2005). Herawaty and Baridwan (2007) argued that the companies that violate debt agreements potentially face the maturity acceleration possibility, interest rate increases, and debt renegotiation. A debt can increase the occurrence of earnings management. The firm wants to reduce the breach likelihood of the debt agreement and improve the bargaining position of the company during debt negotiations (Klein, 2002).

There were conducted some studies on the influence of information asymmetry as measured by *bid-ask spread*, leverage, and earnings management. The study was conducted by Andika (2015), Mahawyahrti (2016), Lestari (2016), Utari (2016), Pramesti (2017) and Dwijayanti (2017) concluded that information asymmetry has a positive influence on earnings management. Yulika (2017) concluded that information asymmetry has a negative influence on earnings management. Cheng (2006) concluded that information asymmetry has an influence on earnings management. Hartanti (2010), Firdaus (2013) and Maiyusti (2014) concluded that information asymmetry has no influence on earnings management. Damayanthi (2008), Sari (2015), Utari (2016) and Astari (2017) concluded that leverage has a positive influence on earnings management. Guna and Herawaty (2010) and Aygun et al. (2014) concluded that leverage has a negative influence on earnings management. Indriani (2010) also examined the leverage influence on earnings management. The research results stated that leverage has no influence on earnings management.

The inconsistencies presence in its results. It can occur the other variables exist that influence the dependent and independent variable relationship. This study uses a *good corporate governance* as a moderating variable to find out whether *good corporate governance* can strengthen or weaken the influence of bid-ask spread and leverage on earnings management. Based on agency theory, earnings management actions can be addressed or minimized through a supervisory mechanism known as *good corporate governance (GCG)*.

*Good corporate governance* is a concept proposed for improving company performance through supervision or monitoring of management performance and ensuring management accountability to *stakeholders* based on a regulatory framework (Nasution and Setiawan, 2007). A weak of good corporate governance implementation in a company can provide opportunities for certain parties to maximize interests for their self. It will ultimately harm the company. A good corporate governance implementation will provide protection to shareholders and directors to gain a return on equitable, appropriate, and efficient investment as well as to ensure that management is as good as possible for the company benefits. Regarding the previous explanation, the research question can be formulated (1) what is a good corporate governance moderate the influence on a bid-ask spread for earnings management? (2) what is a good corporate governance moderate the influence on leverage for earnings management?

The research is intended to determine the good corporate governance ability to moderate the influence on a bid-ask spread for earnings management and to know the influence on leverage on earnings management. The theoretical benefit in the present research is contributing to the agency theory. If an agent can act in conformity with the principal's interests, agency conflicts can be avoided. Therefore, bid-ask spread rates as a measure, unlike information asymmetry and leverage, will not cause managers to take earnings management measures. A good corporate governance implementation will be monitoring on agency behavior running company to ensure that the agent acts in the principal interests. The practical benefits of contributing to users of financial statements, especially investors in making stock investment decisions, especially in assessing the profit information quality reported in the financial statements. Theoretical basis used is agency theory, signal theory, bid-ask spread theory, and positive accounting theory. Agency theory is used to explain earnings management and good corporate governance, signal theory and bid-ask spreads are used to explain bid-ask spreads. Whereas, accounting theory is used to explain leverage.

The concept of agency theory is the relationship or contract between the principal and the agent. Jensen and Meckling (1976) stated that agency relationships as a contract between one or more owners (principals) who hire another person (agent) to perform some services on behalf of the owner. It is included delegating decision-making powers to agents. The owner will delegate responsibility to management, and management agrees to act on an order or authority granted by the owner. The different interest's existence between agents and principals to maximize welfare is the basis of agency theory. An agreement is required on the rights and obligations of each party to avoid agency conflicts. Agent conflicts can increase. If there is an information imbalance obtained by both parties, agents, and principals regarding the company's condition. The agency theory assumed that the agent tends to have more information than the principal or it is called information asymmetry. Information asymmetry can be unequally distributed information between agents and principals. Due to the agent tends to perform undesirable behavior (*dysfunctional behavior*).

The agency theory stated that conflicts between agents and principals can be reduced by oversight mechanisms. It can align (*alignment*) various interests that exist in companies, unlike a good corporate governance. The supervision presence will prevent management to take action. It could harm shareholders, therefore, the costs or losses resulting from management actions can be reduced. The signal theory explained the reason for the company's present information for capital markets (Wolk et al., 2000). Brigham and Houston (2001) stated that signaling theory is an action taken by company management that gives a hint for investors about how management views the company prospects. An information is closely related to signaling theory. This theory has the basic assumption that managers and shareholders do not have access to the same corporate information. It is related to the information content is also related to information asymmetry. According to signal theory, there is information asymmetry between managers and investors. The managers know the company prospects in the future, while investors do not (Gelb, 1999).

Signaling theory as well as explained that management signals to reduce information asymmetry. If the management has more information about the performance and company prospects than shareholders. They can signal by recording discretionary accruals (Widodo, 2005). If the company is performance deteriorates. The manager will signal by lowering accounting earnings, otherwise, if the company's performance improves. Thus, the manager will signal by raising accounting earnings. In signal theory, earnings management is a bad signal. Therefore, the risk faced by investors is also higher.

*Bid-ask spread* is the difference between the highest trader stock price and the lowest selling price of trader stock. Mardiyah (2001) stated that *bid-ask spread* is a function of the three components of costs derived from *inventory holding*, *order processing*, and asymmetric information. Cohen, et al (1986) discussed further on the spread. Cohen, et al (1986) emphasized that a research on the cost of the transaction or *immediacy cost* should distinguish the *spread dealer* from the *spread market*. Cohen, et al. (1986) explained that spread dealer of a stock

is the *bid* and *ask* price difference that is individually determined by the dealer when the dealer will trade the stock. The spread market for a stock is the highest bid price difference and the lowest ask of several dealers who jointly make stock transactions. Based on the explanation, the spread market can be lower. If it is compared to the spread dealer.

Positive accounting theory described a process that uses an ability, understanding, accounting knowledge, and use of accounting policies most appropriate to deal with certain conditions in the future. It assumes in principle that the purpose of accounting theory is to explain and predict accounting practices. [Watts and Zimmerman \(1986\)](#) suggested that a certain economic factor may be related to the manager behavior or financial statements. [Watts and Zimmerman \(1986\)](#) argued that there are three hypotheses in positive accounting theory. It can motivate a manager to take earnings management action. The hypotheses are:

- 1) Bonus plan hypothesis, this hypothesis describes the acquisition of corporate manager bonuses on the calculation and reporting of profits earned by the company is run by the manager.
- 2) Debt covenant hypothesis stated that the higher of loan or debt, the company wants to acquire, the company will attempt to show a good performance to the creditor ([Fatmariansi, 2013](#)). The companies that can fulfill their debt agreement will get a good performance appraisal from creditors. The degree is violated otherwise, the company will get a poor performance appraisal from creditors ([Herawati and Baridwan, 2007](#)).
- 3) Political cost hypothesis, the political cost arises due to an interesting conflict between the manager or the company and the government as a third party who has the authority to transfer the company wealth to the public in accordance with applicable regulations, including regulations, government subsidies, taxes, tariff, and so forth.

Information asymmetry arises when the manager is more informed about internal information and future prospects compared to outsiders. These conditions provide an opportunity for the management to use the information know to manipulate the company finances in order to maximize its prosperity. The information asymmetry existence will encourage managers to present inaccurate information, especially, if the information is related to performance measurement of the manager. The more information in company mastering on the manager than the shareholder. The more manager will have an opportunity to earnings management. Some researchers have found that *bid-ask spread* as a proxy of information asymmetry may influence earnings management. [Andika \(2015\)](#), [Mahawyahrti \(2016\)](#), [Lestari \(2016\)](#), [Utari \(2016\)](#), [Pramesti \(2017\)](#) and [Dwijayanti \(2017\)](#) studied that show an information asymmetry measured using *bid-ask spread* positively influence earnings management.

Earnings management action in the agency theory view can be minimized through *good corporate governance*. It aligns the interests of various parties. A good corporate governance implementation will encourage the transparency realization in recording and financial statement, supervision effectively and efficiently. The transparency existence in recording and reporting of financial statements allows the owner to supervise the manager performance. Therefore, it can suppress earnings management. [Nariastiti \(2014\)](#) stated that corporate governance negatively influences earnings management.

H<sub>1</sub>: Good corporate governance weakens the influence of bid-ask spread on earnings management.

Leverage described the relationship between a debt composition with own capital or assets owned by the company ([Harahap, 2006](#)). A debt covenant hypothesis stated that companies closed to a breach of debt agreements will tend to choose accounting methods that increase profits. Due to the companies that report an increase in net income will reduce the likelihood of companies violating the debt agreement in the future ([Tarjo, 2008](#)). Thus, the creditor will not be suspicious of the company condition. The research on the influence of leverage on earnings management is examined by [Damayanthi \(2008\)](#), [Selahudin et al. \(2014\)](#), [Utari \(2016\)](#) and [Astari \(2017\)](#). The research result showed that *leverage* has a positive influence on earnings management.

Based on agency theory, earnings management action can be overcome or minimized through good corporate governance mechanism. It is strengthened by [Lins and Warnock \(2004\)](#) statement that in general the good corporate governance mechanism can be used to control mismanagement of management behavior unlike earning management action. A good corporate governance effectiveness will improve supervision on the performance and management accountability. Therefore, in order to reduce earnings management level. The research was conducted by [Puspita \(2015\)](#) showed that good corporate governance is able to weaken the influence of leverage on earnings management.

H<sub>2</sub>: Good corporate governance weakens the effect of leverage on earnings management.

## 2. Research Methods

This research was conducted on companies listed on Indonesia Stock Exchange. The research is in 2008-2015. The scope of the study is limited to good corporate governance as a moderator of the influence of *bid-ask spread* and *leverage* on earnings management. The type of the data in the present study is a quantitative data in the form of figures in annual reports, stock prices, and research conducted by IICG in the form of *Corporate Governance Perception Index (CGPI)* score. It used a secondary data covering the annual report, stock price, and CGPI score in 2008-2015. It is obtained from [www.idx.co.id](http://www.idx.co.id), [www.yahooofinance.com](http://www.yahooofinance.com), and SWA magazine as publication media of CGPI score published by IICG. The research population is a company listed on Indonesia Stock Exchange in 2008-2015. The sample was determined based on nonprobability sampling approach with purposive sampling. The purposive sampling is a technique for determining the sample by using a certain criteria/consideration (Sugiyono, 2014: 122). The sampling criteria used in this study are:

- 1) The company is a research participant conducted by *The Indonesian Institute for Corporate Governance (IICG)* progressively in 2008-2015.
- 2) The company is engaged in non-financial business.

Based on the predetermined criteria, there are seven companies. The total of observations is taken as samples about 56 observations for eight years. All variables can be classified as follows. (a) the dependent variable, *i.e.*, earnings management. (b) the independent variable, *i.e.*, bid-ask spread and leverage. (c) moderate variable, *i.e.*, good corporate governance. Earnings management is measured by detecting its action through a real activity. The study refers to Cohen et al. (2008) to develop a combined measure for real earnings management by combining the three real proxy management variables put forward by Roychowdhury (2006). Referring to research that was conducted by Cohen et al. (2008), the equation model to find out the standardization of the three proxies for the real earnings management is as follows:

$$RM = AbnCFO + AbnPROD + AbnDISEXP \dots\dots\dots(1)$$

Description:

RM : real earning management  
 Abn\_CFO : abnormal cash flow from operation value  
 AbnPROD : abnormal production expenses value  
 AbnDISEXP : abnormal discretionary expenses value

In order to find out the AbnCFO, Abn DISEXP, and AbnPROD value refers to Roychowdhury (2006) research using Dechow et al. (1998) model focused on three manipulation projected methods into abnormal cash flow operation (CFO), abnormal production costs (PROD), and abnormal discretionary expenses (DISEXP).

### 1) Abnormal Cash Flow Operation (AbnCFO)

The regression model for cash flows of normal operating activities in this study is replicated to Roychowdhury (2006), *i.e.*:

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

Description:

NCFO<sub>t</sub> : normal cash flow operation in year *t*  
 A<sub>t-1</sub> : total assets in year *t-1*  
 S<sub>t</sub> : sales in year *t*  
 ΔS<sub>t</sub> : sales in year *t* subtracted sales in year *t-1*  
 α<sub>0</sub> : constants  
 ε<sub>t</sub> : error term in year *t*

In the present research is used abnormal cash flow operation activity (AbnCFO). Thus, for every observation year its activity is the difference from the cash value of actual operating activities scaled with total assets one year before test less with normal cash flow operation activity which is calculated using the estimated coefficients obtained from the equation model above.

$$AbnCFO_t = CFO_t/A_{t-1} - NCFO_t \dots\dots\dots(3)$$

Description:

- AbnCFO<sub>t</sub> : abnormal cash flow operation in year *t*
- CFO<sub>t</sub> : cash flow operating in year *t*
- A<sub>t-1</sub> : total assets in year *t-1*
- NCFO<sub>t</sub> : normal cash flow operating in year *t*

2) Abnormal Production Cost (AbnPROD)

Regression models for normal production costs is replicated from [Roychowdhury \(2006\)](#) research as follows:

$$NPROD_t = \alpha_0 + \alpha_1(1/A_{t-1}) + \beta_1(S_t/A_{t-1}) + \beta_2(\Delta S_t/A_{t-1}) + \beta_3(\Delta S_{t-1}/A_{t-1}) + \epsilon_t \dots \dots \dots (4)$$

Description:

- NPROD<sub>t</sub> : normal production expenses in year *t*
- A<sub>t-1</sub> : total assets in year *t-1*
- S<sub>t</sub> : sales in year *t*
- ΔS<sub>t</sub> : sales year *t* substracted sales in year *t-1*
- ΔS<sub>t-1</sub> : sales change in year *t-1*
- α<sub>0</sub> : constants
- ε<sub>t</sub> : error term in year *t*

The research is used abnormal production cost (AbnPROD). Therefore, for every year observation, the abnormal production cost is difference an actual production cost which scaled with total assets one year before testing less with normal production cost calculated by using coefficient estimation obtained from the equation model above.

$$AbnPROD_t = PROD_t/A_{t-1} - NPROD_t \dots \dots \dots (5)$$

Description:

- AbnPROD<sub>t</sub> : abnormal production expenses in year *t*
- PROD<sub>t</sub> : production cost in year *t*, wherein PROD<sub>t</sub> = COGS<sub>t</sub> + ΔINV<sub>t</sub>
- A<sub>t-1</sub> : total assets in year *t-1*
- NPROD<sub>t</sub> : normal production expenses in year *t*

3) Abnormal Discretionary Expenses (AbnDISEXP)

In order to calculate the normal level of discretionary expenses the researcher used the following regression model is replicated by [Roychowdhury \(2006\)](#) research, as follows:

$$NDISEXP_t = \alpha_0 + \alpha_1(1/A_{t-1}) + \beta(S_{t-1}/A_{t-1}) + \epsilon_t \dots \dots \dots (6)$$

Description:

- NDISEXP<sub>t</sub> : normal discretionary expense in year *t*
- A<sub>t-1</sub> : total assets in year *t-1*
- S<sub>t-1</sub> : sales in year *t-1*

In the present study is used abnormal cash flow operation (AbnCFO). Thus, for each year observation on abnormal discretionary expenses is the difference from an actual discretionary cost scaled to the total assets one year before the test substracted the normal discretionary cost calculated using the estimated coefficients of the equation model above.

$$AbnDISEXP_t = DISEXP_t/A_{t-1} - NDISEXP_t \dots \dots \dots (7)$$

Description:

- AbnDISEXP<sub>t</sub> : abnormal discretionary expenses in year *t*

NDISEXP<sub>t</sub> : normal discretionary expenses in year *t*  
 A<sub>t-1</sub> : total assets in year *t-1*

*Bid-ask spread* is a difference in the price of buying and selling shares at a certain time. It is generally calculated using the formula:

$$Bid\text{-}ask\ spread_{i,t} = \frac{askprice_{i,t} - bidprice_{i,t}}{(askprice_{i,t} + bidprice_{i,t})/2} \times 100 \dots\dots\dots (8)$$

Description:

Bid-ask spread<sub>i,t</sub> : Bid-ask spread relative in day *t* (end of year)  
 Ask price<sub>i,t</sub> : The highest *ask* price of the stock of company *i* that occurs in period *t* (end of year)  
 Bid price<sub>i,t</sub> : The lowest *bid* price of the stock of the company *i* that occurs in the period *t* (end of year)

Leverage is the ratio of total debt to total assets of the company. The leverage level can be known through the ratio of total debt to total assets. Leverage can be calculated using the following equation:

$$Leverage = \frac{\text{Total of company debt } i \text{ in period } t \text{ (end of year)}}{\text{Total of company active } I \text{ in period } t \text{ (end of year)}} \dots\dots\dots (9)$$

Good corporate governance is a device regulation in governing arrange relationship between the shareholders, company management, creditor, government, employee, internal and external corporate stakeholders related to their rights and obligations. Therefore, in order to align the interests of various parties within the company and its goal can be achieved well. Good corporate governance in this study is measured using instruments developed by IICG regarding CGPI. The analysis step is classical assumption test and *Moderated Regression Analysis (MRA)* to know or obtain an idea of the influence of bid-ask spread and leverage on earnings management. To determine whether moderation variable good corporate governance able to influence the relationship between independent variable and dependent variable. Wherein the regression equation consists of interaction elements (multiplication of two or more independent variables). The MRA advantage is to know the influence of the moderating variables whether to strengthen or weaken the influence of independent variables on the dependent variable.

### 3. Results and Analysis

Table 1 is presented a descriptive statistics. The descriptive statistics in this study is presented to provide information about the characteristics of research variables included minimum values, maximum values, mean, and standard deviation.

Table 1  
Descriptive statistics test results

Research Variable	N	Minimum Value	Maximum Value	Mean	Standard Deviation
<i>Bid-ask spread</i>	56	0,00	4,35	2,30	1,10
<i>Leverage</i>	56	0,17	1,43	0,54	0,27
<i>Good Corporate Governance</i>	56	69,22	89,12	81,46	5,10
<i>Earnings Management</i>	56	-0,52	0,97	0,05	0,29

Source: Data processed, 2017

*Bid-ask spread* has a minimum value is 0.00 and a maximum value is 4.35. The mean value for the bid-ask spread is 2.30. It means that the average of bid-ask spread level occurring within the firm is 2.30%. The standard deviation value is 1.10. It means that based on descriptive statistical test results, the deviation value of bid-ask spread to the average value is 1.10.

Leverage has a minimum value is 0.17 and a maximum value is 1.43. The average value for leverage is 0.54. It means that 54% of the financial company is financed by a debt. The standard deviation value is 0.27. It means based on the descriptive statistical test results occur a deviation of leverage value to the average value is 0.27.

Good corporate governance has a minimum score is 69.22 and a maximum value is 89.12. The average value of good corporate governance is 81.46. It means that the average company has implemented a good corporate governance properly and reliably. The standard deviation value is 5.10. It means based on the descriptive statistical test results occur a deviation from good corporate governance value to the average value is 5.10.

Earnings management has a minimum value is -0.52 and a maximum value is 0.97. The mean value for earnings management is 0.05. It means that the average firm takes earnings management action by raising a profit is 5% of the actual profit value. The standard deviation value is 0.29. It means based on the descriptive statistical test results occur a deviation value of earnings management towards the average value is 0.29.

Table 2  
Normality test results

Description	Unstandardized Residual
N	56
Kolmogorov-Smirnov (Z)	0,09
Asymp. Sig (2-tailed)	0,20

Source: Data processed, 2017

Based on Table 2, Asymp value. Sig (2-tailed) is 0.20. The value itself is indicated that statistically Asymp. Sig (2-tailed) is higher than 0.05. Therefore, it can be concluded that the data in the research model is normally distributed and feasible for further analysis.

Table 3  
Heteroscedasticity test results

Model	Unstandardized Coefficient		Standardized Coefficient	T	Sig.
	B	Std. Error	Beta		
Constant	-0,643	1,287		-0,499	0,620
<i>Bid-ask Spread</i> (X1)	0,260	0,329	1,728	0,793	0,432
<i>Leverage</i> (X2)	1,072	1,406	1,739	0,763	0,449
<i>Good Corporate Governance</i> (GCG) (X3)	0,012	0,016	0,366	0,749	0,457
<i>Bid-ask Spread</i> interaction with GCG (X1X3)	-0,003	0,004	-1,829	-0,815	0,419
<i>Leverage</i> interaction with GCG (X2X3)	-0,016	0,018	-1,956	-0,925	0,360

Source: Secondary data processed, 2017

Based on the results in Table 3, it can be seen that bid-ask spread variables have a significance is 0.432. Leverage variables have a significance is 0.449. Good corporate governance variables have a significance is 0.457. Bid-ask spread and good corporate governance variables have a significance are 0.419, leverage interaction variables and good corporate governance have a significance are 0.360. It shows that the significance value of each variable is higher than 0.05. Therefore, it can be concluded that there is no heteroscedasticity in the regression model.

Table 4  
Autocorrelation test results

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate	Durbin-Watson
1	0,598 <sup>a</sup>	0,357	0,293	0,2448887	2,074

Source: Data processed, 2017



Based on Table 4, the statistic result is 2.074 approaching (4-dU) value is 2.32 in the area that does not consist of autocorrelation or regression model that has been created does not consist of autocorrelation symptoms. Therefore, the regression model is suitable to predict.

Table 5  
Results of Moderated Regression Analysis (MRA)

Model	Unstandardized Coefficient		Standardized Coefficient	T	Sig.
	B	Std. Error	Beta		
Constant	-1,751	1,940		-0,903	0,37
<i>Bid-ask Spread</i> (X1)	0,171	0,495	0,648	0,346	0,73
<i>Leverage</i> (X2)	4,151	2,119	3,832	1,959	0,05
<i>Good Corporate Governance</i> (GCG) (X3)	0,028	0,024	0,489	1,167	0,25
<i>Bid-ask Spread</i> interaction with GCG (X1X3)	-0,002	0,006	-0,771	-0,401	0,69
<i>Leverage</i> interaction with GCG (X2X3)	-0,061	0,027	-4,144	-2,283	0,03
R <sup>2</sup>	0,357				
<i>Adjusted</i> (R <sup>2</sup> )	0,293				
F	5,557				
Sig. F	0,000				

a. Dependent variables: earning management (Y)

b. Source: Data processed, 2017

Based on Table 5, it can be compiled moderation regression equation as follows.

$$Y = -1,751 + 0,171X_1 + 4,151X_2 + 0,028X_3 - 0,002X_1 * X_3 - 0,061X_2 * X_3$$

The constant value is -1.751. It is stated that if bid-ask spread, leverage, and good corporate governance are considered zero (fixed or unchanged), earnings management is -1.751. The negative value at the constant value indicates that earnings management is conducted by income minimization pattern or by decreasing the amount of reported profit. The value of the bid-ask spread coefficient is 0.171. It defines that if the value of the bid-ask spread variable increases by 1% then earnings management increases by 0.171% with the assumption that leverage and good corporate governance variables remain constant. The leverage coefficient value is 4,151. It defines that if leverage variable value increased by 1% then earnings management increased by 4,151% with the assumption of bid-ask spread and good corporate governance is constant. The value of good corporate governance coefficient is 0,028. If the value of good corporate governance variable increases by 1% then earnings management increases by 0,028% with the assumption of bid-ask spread and leverage is constant.

The interaction coefficient value of bid-ask spread with good corporate governance is -0.002. It means that if there is an interaction between bid-ask spread with good corporate governance then earnings management tends to decrease. It defines that good corporate governance weakens the bid-ask spread influence of earnings management. The coefficient value of leverage interaction with good corporate governance is -0,061. It means that if there is an interaction between leverage with good corporate governance hence earnings management tends to decrease. This means that good corporate governance weakens leverage in the influence of earnings management.

Based on Table 5, it can be seen that *adjusted R square* is 0.293. It means that 29.3% of the variation in earnings management is influenced by the variable of the bid-ask spread, leverage, and moderation of good corporate governance. The rest is 70,7% influenced by another variable which is not explained in the model. Based on Table 5 note that F-count value coefficient is 5.557 with a significance of 0.00 less than 0.05. It means that the research model is feasible for further analysis.

The first hypothesis testing aims to examine good corporate governance in moderating the influence of bid-ask spread on earnings management. The first hypothesis (H<sub>1</sub>) presented in this research is good corporate governance weaken the influence of bid-ask spread on earnings management. The test results in Table 5 show that the coefficient t-test is -0.401 with a significance level is 0.69 more than 0.05. It means that good corporate governance

does not moderate the influence of bid-ask spread on earnings management. Therefore,  $H_1$  is rejected. The results show that good corporate governance does not moderate the influence of bid-ask spread on earnings management. The study results do not support the statement by [Lestari \(2016\)](#) that good corporate governance moderates the influence of information asymmetry as measured by bid-ask spreads on earnings management. However, this study is consistent with [Wahyono \(2012\)](#) research, stated that good corporate governance has no influence on earnings management. Good corporate governance interacting with the bid-ask spread is unable to moderate bid-ask spread on earnings management.

In the agency, the theory is believed that the good corporate governance implementation can moderate the influence of bid-ask spread as a measure of the information asymmetry level on earnings management. However, the hypothesis in this study is rejected. This may be due to the results of the *Corporate Governance Perception Index (CGPI)* scores as a survey result of the *Indonesian Institute of Corporate Governance (IICG)* is less able to reflect the actual corporate governance in the related year. This is due to the IICG and SWA magazine announced the results of the previous year survey in the following year. Therefore, CGPI assessment results become less than optimal in the year, it should be.

The information is related to good corporate governance announced by IICG and SWA magazine is one of the signals given by the company to reduce the occurrence of information asymmetry. It can be used to determine *spread* in the capital market. The existence of delays in conveying information related to good corporate governance indicates that the good index of good corporate governance does not influence the possibility of management to make earnings management. Therefore, the good corporate governance implementation is not lower of the level of earnings management at the company. The study result implies that although good corporate governance can not weaken the influence of bid-ask spread on earnings management, corporate stakeholders should consider the implementation of corporate good corporate governance as an effort to control and prevent earnings management action.

The second hypothesis test aims to examine a good corporate governance in moderating the influence of leverage on earnings management. The second hypothesis ( $H_2$ ) is presented in this research is good corporate governance weaken the influence of leverage on earnings management. The test results in Table 5 show that the coefficient t-test is -2.2283 with a significance level is 0.03 less than 0.05. It means that good corporate governance weakens the influence of leverage on earnings management. Therefore,  $H_2$  is accepted. The results showed that good corporate governance weakens the influence of leverage on earnings management. It means that companies with good corporate governance tend to be able to reduce the manager opportunistic actions to conduct earnings management. The study results support [Puspita \(2015\)](#) research stated that good corporate governance is able to weaken the influence of leverage on earnings management.

Positive accounting theory seeks to explain a process that uses capabilities, understanding, and knowledge of accounting and the use of accounting policies that are most appropriate for dealing with certain conditions in the future. The companies that get closer to the offense on debt-based accounting (*debt covenant hypothesis*). It tends to make earnings management by choosing accounting methods that increase profits. The concept of agency theory explained that the manager performed a certain duty for the owner of the company. Thus, the owner rewards the managers for their performance. Increased misbehavior by managers can be due to the fact that the company owner is unable to observe the agent activities on a continuous and periodic basis.

The existence of a conflict between the owner and the manager of the company can be reduced a control mechanism that can align (*alignment*) various interests that exist within the company. According to the agency theory, earnings management actions can be minimized through the implementation of good corporate governance that aligns the interests of various parties. The implementation of good corporate governance will improve supervision on the performance and management accountability. Therefore, in order to reduce the level of earnings management. The study results imply that the creditors can pay attention to leverage ratio and implementation of corporate good corporate governance. It can be a consideration in lending credibility to the company. The creditor can analyze which companies have the potential to take earnings management measures in order to obtain credit loans in addition to working capital.

#### 4. Conclusion

The conclusions formed based on the previous discussion results are as follows: Good corporate governance does not moderate the influence of bid-ask spread on earnings management. It means that Good corporate governance interacting with bid-ask spreads is unable to moderate bid-ask spread on earnings management. Good corporate governance weakens the influence of leverage on earnings management. It defines that companies with

good corporate governance tend to be able to reduce the manager's opportunistic actions in taking earnings management action.

### **Recommendations**

Based on the research results and conclusion then can be provided some recommendations. For investors, it is advisable to pay attention to supporting factors *i.e.*, a better implementation of corporate governance in the company every year before investing. The subsequent studies may use different proxies to detect earnings management *i.e.*, an accrual earnings management. Bid-ask spread proxy in the present study is used the stock price at the end of the research year. The subsequent research can use the stock price on the annual report is published. The proxy for good corporate governance can use components of good corporate governance unlike managerial ownership, institutional ownership, independent commissioner, and audit committee.

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