Income Smoothing Perspective of Mining Companies in Developing Countries

I Dewa Made Endiana[1*], *Erna* Pasanda[2]
[1]Accounting Department, Mahasaraswati Denpasar University, Indonesia
[2]Accountuning Department, Kristen Indonesia Paulus Makasar University, Indonesia

Abstract. Income smoothing is an effort of corporate management in reducing the range of profits reported on the financial statements as achieving the desired level of profit, in other words that the normalization of earnings carried out intentionally is to reach a certain level. This study aims to examine the factors that influence income smoothing practices. This study uses all mining sector industrial companies listed on the Indonesia Stock Exchange in 2015 to 2018. Sampling using purposive sampling method and obtain a sample of 9 out of 40 sample data for 3 years of observation. The statistical analysis used in this study is logistic regression analysis. The results show that company size has a positive effect to income smoothing. While profitability, leverage and institutional ownership do not have an influence on income smoothing.

1. Introduction

Financial reports are information describing the financial condition of a company, and further information can be used as a description of the company's financial performance (Fahmi 2013: 4). Management presents financial statements and a financial report generally consists of a balance sheet, income statement, retained income statement, cash flow statement, and notes to financial statements. SFAC No. 1 states the purpose of corporate financial reporting, which is to provide useful information for making business and economic decisions by existing and potential investors, creditors, management, government, and other users (Fahmi, 2013).

One of the important parameters of the financial statements used to measure management performance is earnings (Fahmi, 2013: 5). Profit is one of the potential information contained in financial reports and which is very important for internal and external parties to the company. Earnings information is a component of the company's financial statements that aims to assess management performance, help estimate the ability of representative earnings in the long run, and estimate the risk of investing or lending funds (Kirschenheiter and Melumad, 2002).

The great attention of investors or other users is the level of profit generated by the company which is one of the reasons for encouraging management to perform several dysfunctional behavior actions, namely by manipulating earnings or earnings management. Income smoothing is one of the patterns of earnings management (Cahan: 2008 in

Prabayanti and Gerianta, 2011). In this case what causes managers to perform dysfunctional behavior is the application of agency theory, where managers who act as agents and company owners as principals have differences in information or information asymmetry, where managers who act as internal parties of the company know better about the condition of the company than external parties. So that this gap is used by managers to perform dysfunctional behavior, namely by performing earnings management. Earnings management is one of the factors that can reduce the credibility of financial reports (Dewi and Prasetiono, 2012).

The practice of income smoothing cannot be separated from the factors that influence it. According to Moses (1987), Utomo and Siregar (2008), the factors that influence income smoothing are total assets or company size. According to Ashari (1994), Utomo and Siregar (2008) the factors that influence income smoothing are profitability, business group, and nationality. According to Archibald (1967), White (1970), Carlson and Chenchuramaimah (1997), the factors that influence income smoothing are profitability. According to Dechow et al (1996), the factors that influence income smoothing that auditor reputation, the number of board of directors, leverage, and the percentage of shares offered to the public during the IPO. According to Koh (2002) factors affecting income smoothing that institutional ownership. According to Moh et al (1998) and Cornet et al (2006), the factors that influence income smoothing are institutional ownership.

Therefore, the factors above prove that income smoothing is influenced by firm size, profitability, leverage, and institutional ownership. According to Machfoedz (1994) in Widaryanti's (2009) study, company size is a scale in which the size of the company can be classified according to various ways, including: total assets, log size, stock market value, and others. Basically, the size of the company is only divided into 3 categories, namely large companies (large firms), companies an medium (medium-size) and small companies (small firms). This company size determination is based on the company's total assets. (Moses: 1987 in Butar and Sudarsi research, 2012) found empirical evidence that companies with large sizes have a large incentive to smooth income compared to small companies, because companies that have large amounts of assets will be more noticed by the public and the government. Therefore, large companies will avoid a drastic increase in profit in order to avoid an increase in government costs.

The second factor that affects income smoothing is profitability. Profitability is an important indicator that can be used to assess a company. Besides being used to measure the company's ability to generate profits, profitability is the net result of various policies and decisions (Riyanto: 1993). Companies that have lower profitability will receive a greater impact than companies with high profitability, if there is a fluctuation in the amount of profit. Therefore, companies that have lower profitability are more likely to perform income smoothing actions (Ashari et al: 1994).

The third factor that affects income smoothing is leverage. Leverage shows the extent to which the company's assets have been financed by the use of debt (Kasmir,2011: 151). Leverage is proxied by debt to total assets obtained from total debt divided by total assets. An indication that the company is doing income smoothing to avoid violating debt covenants can be seen through the company's ability to pay off its debts using its assets. Companies that have a high level of leverage are suspected of doing income smoothing because the company is threatened with default so that management makes policies that can increase revenue.

The last factor that affects income smoothing is institutional ownership. According to Harjito (2006) in Wahyuni and Carolina (2013) research, the company's share ownership structure consists of managerial ownership and a proportion of institutional ownership. Institutional ownership is the proportion of company shares owned by the institution.

Institutional (external) parties such as banks, insurance companies, investment companies, and other institutions. The presence of high institutional ownership limits managers to manage earnings. The stronger the control and supervision by external parties, the greater institutional ownership is needed (Ujiyantho:2007). Institutional ownership (KIN), measured by the percentage of institutional share ownership.

Several reasons why research related to earnings management in its part, namely income smoothing are still widely used, are due to the higher numbers and financial engineering activities that occur. In fact, it can be said that almost all companies around the world with different reasons perform earnings management when recording transactions and compiling their financial information. Moreover, this financial engineering activity is relatively easy to do for anyone who understands the concept of financial accounting without having to violate existing accounting principles. The purpose of this study was to determine the effect of company size, profitability, leverage and institutional ownership on income smoothing in mining companies on the Indonesian stock exchange.

2 Literature review and hypothesis

2.1 Theory agency

Agency theory (Agency Theory) is the basis of the theory underlying the company's business practices are used for this. This theory is one of the theories that have emerged in the development of accounting research, which is a modification of the development of the financial accounting model by adding aspects of human behavior to the economic model. Agency theory is based on the contractual relationship between shareholders / owners and management / managers. According to this theory, the relationship between owner and manager is inherently difficult to create because of the conflicting interests (Conflict of Interest).

Agency theory assumes that all individuals act in their own interests. Shareholders as principal are assumed to be only interested in increasing financial results or their investment in the company. While the agents are assumed to receive satisfaction in the form of financial compensation and the conditions that accompany the relationship. On the agency side, it has financial information than the principal (information excellence), while on the principal side it may take advantage of personal or group interests (self-interest) because it has the superiority of power (discretionary power).

Watts and Zimmerman (1986) empirically proved that the principal and agent relationship is often determined by accounting numbers. This spurs agents to think about how these accounting numbers can be used as a means of maximizing their importance. One of the agents' actions is income smoothing.

2.2 Company size

According to Butar and Sudarsi (2012), Company size is a value that shows the size of the company. The size of the company shows the size of the company. " "The size of the company can be measured by the total assets (assets) of the company," (Widaryanti,2009). Assets according to Kieso (2011: 192) are as follows: Asset is a resource controlled by the as a result of past events and from which future economic benefits are expected to flow to the entity. The statement explains that an asset is a resource controlled by a company as a result of past events and is expected to receive future economic benefits for the company.

2.3 Profitability

According to Agus Sartono (2010: 122), "Profitability is the ability of a company to earn profits in relation to sales, total assets, as well as its own capital." According to Mamduh M. Hanafi (2009: 159), "Profitability is the company's ability to generate profits by using the total assets (assets) owned by the company after adjusting for the costs to finance these assets."

2.4 Leverage

According to Agus Sartono (2010: 120), "Leverage shows the proportion of the use of debt to finance investment. According to Kasmir (2014: 112), "Leverage shows the extent to which the company's assets are financed with debt." According to Agus Harjito and Martono (2011: 315) states that, "Leverage in the business sense refers to the use of assets and sources of funds by companies where in the use of these assets or funds the company must pay fixed costs or fixed expenses. " According to Jogiyanto (2013: 282), "Leverage is defined as the total book value of long-term debt divided by total assets."

2.5 Institutional Ownership

Koh (2003) in Butar and Sudarsi (2012) research, "Institutional ownership is the number of company shares owned by institutional investors at the end of the year as measured by a percentage." According to Harjito (2006) in Wahyuni and Carolina's research (2013) states that, "Institutional ownership is the proportion of company shares owned by institutional (external) parties." From the above understanding, it can be concluded that institutional ownership is ownership of shares owned by another institution with institutional parties.

2.6 Income Smoothing

"Income smoothing can be seen as a process of normalizing profit that is deliberately designed to achieve a trend or the desired level," (Belkaoui (2012: 192)). According to Charless W. Mulfor and EugeneE. Comiskey which is translated into language by Aurolla Saparini Harahap (2010: 4), income smoothing is defined as, "A form of revenue engineering designed to eliminate actual (high and low) income volatility, including steps to reduce and" save ". profit during the period of high profit to be used during the period of loss. "According to Beidleman (1973)in Imam Ghazali and Anis Chariri (2007: 370) argues," Reported income smoothing can be defined as a deliberate attempt to fluctuate the level of profit so that at present it is considered normal for a company. In this case, income smoothing represents an attempt by the company's management to reduce the abnormal variation in earnings within the limits permitted in accounting practices and fair management principles. " From some of the definitions above, it can be concluded that what is meant by income smoothing is an attempt by the company's management to regulate earnings in accordance with the desired by certain parties, to the extent permitted by the principles of good accounting and management.

2.7 Effect of Company Size on Firm Income Smoothing

Size is a value that indicates the size of the company. There are various proxies that can be used to represent the size of the company, namely the number of employees, total assets, log size, stock market value, and others. The size of the company is divided into three categories: large companies, medium-sized companies, and small companies. Determination of company size is based on the natural logarithm of assets (Herni and Susanto, 2008).

Moses (1987) found empirical evidence that companies with large sizes have a greater incentive to smooth income compared to small companies, because companies that have large amounts of assets will be more noticed by the public and the government. Therefore, large companies will avoid a drastic increase in profit in order to avoid an increase in government costs. On the other hand, a drastic decline in profits signals that the company is in crisis. This will invite government intervention. An example that is easily seen is the imposition of taxes (Watts and Zimmerman, 1986). H1: Company size has a positive effect on income smoothing

2.8 The Effect of Profitability on Income Smoothing

Profitability is an important indicator that can be used to assess a company. Besides being used to measure the company's ability to generate profits, profitability is the net result of various policies and decisions (Riyanto:1993). Machfoedz(1994) defines profitability as an indicator of performance by management in managing the company. The ability of a company to earn a profit in question is its relationship with sales, total assets, and its own capital. Profitability is an important measure that is often used as the basis for investors in assessing the health of a company, which in turn can influence the decision to sell or buy shares in a company. Profitability is also often used by creditors to decide their loan to a company.

The level of company profitability is a factor that influences earnings management actions. This is because the higher level of profitability will result in high expectations from regulators and the public for the company to provide compensation to them in the form of tax payments to regulators and social programs to the community. Profits that are too high will increase the tax to be paid, on the other hand, a decrease in profits that is too low will show that management's performance is not good. Therefore, it is possible for management to keep reported earnings from fluctuating by performing income smoothing to avoid paying high taxes. H2: Profitability has a positive effect on income smoothing

2.9 The Effect of Leverage on Income Smoothing

According to Scott (2003) in Tarjo (2008) states that the practice of income smoothing, which is a form of earnings management, is often carried out when they face coercion from creditors by changing their accounting method. As the ratio leverage increases, the risk borne by the owners of capital will also increase. Companies that have level of leverage a high are thought to have a greater tendency to smooth income because the company is threatened with default so that management makes policies that can improve income, in order to improve his position bargaining during debt negotiations or to get funds from creditors or investors (Utomo and Siregar,2008).

Leverage is the ratio between debt and assets which shows how much of the assets are used to guarantee debt. In theory Positive accounting for leverage is stated in the hypothesis debt covenant hypothesis) namely that the higher the debt of the company, the closer the company is to the constraints contained in the debt agreement and the greater the

opportunity for breach of the agreement and the occurrence of technical failure costs, the more likely it is that managers use accounting methods that increase profits (Ahmed Riahi and Belkaoui,2012: 189). This is done because the reported increase in net income will reduce the possibility of failure to pay debts in the future. The reported increase in profit attracted the attention of creditors to provide additional loans (Scott, 2003 in Tarjo 2008). Companies with a high level of debt have a higher risk, so company profits fluctuate and companies tend to do income smoothing so that company profits look stable because investors tend to observe profit fluctuations in a company (Kustiani and Ekawati,2006). Furthermore, Utomo and Siregar (2008) found empirical evidence that leverage has a positive effect on income smoothing. Companies that are threatened with default tend to smooth their income by increasing their profits. This was done in order to improve his bargaining position during debt negotiations or to get fresh funds due to difficulties in finding loan funds. H3: Leverage has a positive effect on income smoothing

2.10 Effect of Institutional Ownership on Income Smoothing

Institutional ownership is ownership of shares owned by other institutions. This is one way to monitor the performance of managers in managing the company so that the existence of other institutional ownership can be expected to reduce the manager's earnings management behavior. Institutional ownership has the ability to control management through the monitoring process effectively. Cornet et al, (2006: 14) in Starga, Vince and Kamaliah (2014) found it evidence suggesting that supervisory actions by a company and institutional investors can limit manager behavior. Moh et al (1998) in Starga, Vince and Kamaliah (2014) state that institutional investors are parties who can monitor agents with large ownership, so that managers' motivation to manage earnings is reduced. According to Gideon (2005) states that through the mechanism of institutional ownership, the effectiveness of management of company resources by management can be known from the information generated through market reactions and earnings announcements. Institutional ownership has the ability to control the management through the monitoring process effectively, thereby reducing management actions to carry out earning management. The basis for this argument is that the greater the level of institutional ownership, the more effective the control mechanism will be on management performance and of course will also reduce the occurrence of earnings management. According to Koh (2003) in Butar and Sudarsi (2012) that institutional investors with large amounts of ownership can function to reduce managerial incentives to manage earnings aggressively. It is proven that institutional investors who are active and control large numbers of shares can reduce earnings management. Chung et.al (2002) also stated that institutional investors have the opportunity, resources, and ability to supervise company managers in management actions. Then the greater the institutional ownership, the lower the management's actions to carry out earning management.H4 : Institutional ownership has a negative effect on income smoothing

3 Research methods

Operational Definition of Variable

a. Company Size

According to Machfoedz (1994) states that, "Company size is a scale in which a company can be classified as a company according to various ways (total assets, log size, stock market value, and others). Basically, company size is only divided into 3

categories, namely large companies (large firms), medium companies (medium size) and companies small. The determination of the size of the company is based on the total assets company's. " According to Machfoedz (1994), "company size is a scale in which the size of the company can be classified according to various ways (total assets, log size, stock market value, etc.)." In this study, company size is measured using the log of total assets.

$$\text{Ukuran Perusahaan} = \text{Ln Total Aktiva} \quad (1)$$

b. Profitability.

According to Agus Sartono (2010: 122), "Profitability is the company's ability to earn profits in relation to sales, total assets, and own capital." According to Kasmir (2014: 196) the definition of the profitability ratio is "The profitability ratio is a ratio to assess the company's ability to seek profit." In this study, profitability is measured using Net Profit Margin (NPM). Where NPM shows a measure of ability the company generates net income against total sales achieved (Agus Sartono, 2010). Net Profit Margin (NPM) as an indicator of profitability due to the This logical margin is directly related to the object of income smoothing and is often used by investors as a basis for making economic decisions related to the company so that it is often used as an income smoothing objective by management to reduce earnings fluctuations and show outsiders that the company's management performance has been effective (Azhari:2010), with the following ratio measurement formula:

$$\text{Net Margin} = \text{Net Profit After Tax/Net Sales} \quad (2)$$

c. Leverage

According to Kasmir (2014: 113), "Leverage shows the extent to which the company's assets are financed with debt." According to Agus Harjito and Martono (2011: 53), "Leverage is a ratio that measures how much a company uses funds from debt (loans)." In this study, leverage is calculated using the Debt To Assets Ratio (Debt Ratio). Where the Debt Ratio shows the comparison between total debt and total assets. In other words, how much the company's assets are financed by debt (Kasmir,2014: 156).chosen Debt ratio is as the indicator leverage because to avoid violating debt covenants when experiencing default, it can be seen through the company's ability to pay off its debts using its assets. It is calculated by the following formula:

$$\text{Debt Ratio} = \text{Total Debt /Total Asset} \quad (3)$$

d. Institutional Ownership

According to Koch (2003) institutional ownership is the number of company shares owned by institutional investors at the end of the year as measured by a percentage. Institutional ownership (KINST) is company shares owned by institutions or insurance companies, banks, investment companies and other institutional ownership. According to Gideon (2005) percentage of a certain shares owned by an institution can affect the process of preparing financial statements which does not preclude accrualization in the interests of management. The indicator used to measure institutional ownership is the percentage of the total shares owned by institutional parties of all the company's share capital in circulation. The percentage of shares owned by an institution can be

calculated with the formula: Institutional Ownership = number of share owned by the institution/ total outstanding shres

e. Income Smoothing

According to Beidleman, who was translated by Ali Akbar Yulianto (2012: 192), the definition of income smoothing is as follows: "Income smoothing is a reduction or intentional fluctuations in some of the levels of profit that the company currently considers normal. Smoothing reflects an attempt by company management to reduce abnormal variations in earnings to the extent permitted by sound accounting and management principles. " According to Eckel (1981) income smoothing is tested by the index Eckel (1981). Eckel uses the Coefficient Variation (CV) variable net income and sales variables clean. Income Smoothing Index is calculated by the following formula (Eckel, 1981):

$$IS = CV\Delta I/CV\Delta S \quad (4)$$

Description:

ΔI : Change in profit in one period

ΔS : Change in sales in one period

CV : Coefficient of variation of the variable, namely the standard deviation divided by the average - average I or S.

CV ΔI : The coefficient of variation for changes in earnings

CV ΔS : The coefficient of variation for changes in sales of

CV ΔI and CV ΔS can be calculated as follows:

$$\text{CV } \Delta I \text{ dan CV } \Delta S = \sqrt{\frac{\sum(\Delta X - \Delta\bar{X})^2}{n-1}} : \Delta\bar{X} \quad (5)$$

ΔX = change in net income / profit (I) or sales (S) between years n to years n-1

ΔX = average change in net income / profit (I) or sales (S) between years n to years n-1

n = number of years observed.

There are several criteria for companies that perform income smoothing index Eckel (1981):

1. Companies are considered to do income smoothing if the income smoothing index is less than 1
2. Company is considered not to do income smoothing if the income smoothing index is greater than 1

Income smoothing is a variable dummy, with category for companies that do not do income smoothing, it is given a value of 1 and for companies that do income smoothing it is given a value of 0.

Population and Sample

Sugiyono (2013) defines population as a generalization area consisting of objects / subjects that have certain qualities and characteristics that are determined by the researcher to be studied and then draw conclusions. The population used in this study is the Mining Sector Industry companies listed on the Indonesia Stock Exchange.

Based on the above understanding, the population in this study is the financial statement data of mining industry companies listed on the Indonesia Stock Exchange (IDX) from

2016 to 2018, so that a population of 41 companies is obtained. Sampling using non-probability sampling method by means of purposive sampling.

3.1 Data Analysis Techniques

3.1.1 Logistic Regression Analysis

Hypothesis testing is carried out multivariate using logistic regression. According to Kuncoro (2001), logistic regression does not have an assumption of normality on the independent variables used in the model. That is, the explanatory variables do not have to be normally distributed. This is because the dependent variable estimation technique which underlies the logistic regression is the maximum likelihood, not the Ordinary Least Square (OLS) assumption. The stages in testing using the logistic regression test can be explained as follows:

1) Assessing the feasibility of the regression model The feasibility of the regression model is assessed using Hosmer and Lemeshow's goodness of fit test. If the value of Hosmer and Lemeshow's goodness of fit test is greater than 0.05, then the null hypothesis cannot be rejected and it means that the model is able to predict its observation value or it can be said that the model is acceptable because it is in accordance with the observation data.
2) Assessing the overall model (overall model fit) The test is done by comparing the -2 Log Likelihood value at the beginning (Block Number = 0) with the -2 Log Likelihood value at the end (Block Number = 1). If there is a decrease in the value of -2 Log Likelihood, then it shows a good regression model or in other words the hypothesized model is fit with the data.
3) Assessing the coefficient of determination (Nagelkerke R Square) The value of the coefficient of determination in the logistic regression model is shown by the Nagelkerke R Square value. The Nagelkerke R Square value shows the variability of the dependent variable which can be explained by other variables outside the research model.
4) Hypothesis testing Hypothesis testing is used to determine whether the independent variable individually has a significant effect on the dependent variable. This test basically shows how far an independent variable individually explains the dependent variable (Ghozali, 2016: 97). Hypothesis testing is used to see the significance of the effect of the independent variable individually on the dependent variable by assuming other variables are constant. In this study using a significance level of 0.05 (α = 5%). Criteria for acceptance and rejection of the hypothesis:
   a) If t significance $\leq$ 0.05, the independent variable individually has a significant effect on the dependent variable.
   b) If t significance> 0.05, the independent variable individually does not have a significant effect on the dependent variable.
5) Assessing the classification matrix. The classification matrix shows the predictive power of the regression model to predict the likelihood of the dependent variable occurring. The predictive power of the regression model for predicting the probability of the dependent variable occurring is expressed as a percent.

6) Omnibus test
   Omnibus test is an analysis used to test the effect of the independent variable simultaneously on the dependent variable (Ghozali, 2011: 338).
7) Multicoleniarity test
   A good regression model is regression in the absence of strong correlation symptoms among the independent variables. Multicolarity testing in logistic regression uses a correlation matrix between independent variables to see the magnitude of the correlation between independent variables. If the value of the correlation coefficient between the independent variables is less than 0.8, it means that there are no symptoms of serious multicollinearity between the independent variables.
8) Assessing the logistic regression model that is formed
   The logistic regression model that is formed produces the regression coefficient value and significance α (0.05). The regression coefficient of each tested variable shows the form of the relationship between variables. Hypothesis testing is done by comparing the significance value (sig) with the error rate (α). If sig <α, it can be said that the independent variable has a significant effect on the dependent variable.

4 Result and discussion

4.1 Assessing Model

Feasibility The regression model was assessed using the Hosmer and Lemeshow's Godness of Fit Test. Hosmer and Lemeshow's Godness of Fit Test tests the null hypothesis that the empirical data fits into the model (there is no difference between the model and the data so that the model can be said to be fit). The statistical value of Hosmer and Lemeshow's Godness of Fit Test is 3,880 with a significance probability of 0.693 which is above 0.05.

Table 1. Feasibility Test Results for Regression Model

Step	Chi-square	df	Sig.
1	3.880	6	.693

Thus it can be concluded that the model is able to predict the value of the observations or it can be said that the model is acceptable because it matches the observation data, so the model is suitable for use for further analysis.

4.1.1 Assessing the Overall Model (Overall Model Fit)

Testing is carried out by comparing the -2 Log Likelihood value at the beginning (Block Number = 0) with the -2 Log Likelihood value at the end (Block Number = 1). If there is a decrease in the value of -2 Log Likelihood, then it shows a good regression model or in other words the hypothesized model is fit with the data.

Table 2. Initial Test Results of the Overall Model Fit Block 0: Beginning Block

Iteration		-2 Log likelihood	Coefficients Constant
Step 0	1	48.902	-.333
	2	48.902	-.336
	3	48.902	-.336

Table 3. Final Test Results of the Overall Model Fit

Iteration		-2 Log likelihood	Coefficients				
			Constant	UP	PROFIT	LV	KINS
Step 1	1	42.263	-1.285	.024	.996	1.987	-.001
	2	40.830	-1.567	.057	.496	1.678	-.002
	3	39.130	-1.936	.155	-1.421	-.231	-.003
	4	39.012	-2.120	.185	-1.879	-.710	-.004
	5	39.004	-2.136	.187	-1.894	-.726	-.006
	6	39.000	-2.136	.187	-1.894	-.725	-.008
	7	38.998	-2.136	.187	-1.893	-.723	-.010
	8	38.994	-2.136	.187	-1.891	-.718	-.017
	9	38.914	-2.123	.191	-1.834	-.557	-.232
	10	38.892	-2.114	.194	-1.786	-.420	-.422
	11	38.892	-2.114	.195	-1.786	-.420	-.424
	12	38.892	-2.114	.195	-1.786	-.420	-.424

Based on Table 2 and Table 3 it can be seen that the results of -2 Log Likelihood (-2LL) in The beginning of Block Number = 0 is 48.902 and the value of -2 Log Likelihood (-2LL) at the end of Block Number = 1 is 38.892. This means that there is a decrease in the likelihood value (-2LL), so it can be concluded that the hypothesized regression model is fit with the data.

4.1.2 Assessing the coefficient of determination (Nagelkerke R Square)

The value of the coefficient of determination in the logistic regression model is indicated by the value of Nagelkerke R Square. The Nagelkerke R Square value shows the variability of the dependent variable which can be explained by other variables outside the research model. The results of the coefficient of determination (R2) test can be seen from Table 4 below:

Table 4 Test Results of the Coefficient of Determination (R^2)

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	38.892[a]	.243	.327

In this case there are 2 sizes of R Square, namely Cox & Snell, which is 0.243 and Nagelkerke R Square value of 0.327 which means that the variability of the dependent variable which can be explained by the variability of the independent variable is 32.7%, while the remaining 67.3% is explained by other variables outside of this research model.

4.1.3 Assessing the Classification the classification

Matrix shows the predictive power of the regression model to predict the likelihood of the dependent variable occurring. The predictive power of the regression model for predicting the probability of the dependent variable occurring is expressed in percent.

Table 5. Results of the Classification Matrix

Observed			IS .00	IS 1.00	Percentage Correct
Step 1	IS	.00	13	8	61.9
		1.00	4	11	73.3
	Overall Percentage				66.7

a. The cut value is .500

Table 5 shows that of the 21 samples that empirically show companies that do income smoothing are 13 companies or 61.9% which can be accurately predicted by this logistic regression model as companies that perform income smoothing, and 8 Companies that deviate from the prediction, while from the 15 samples that do not check earnings are 11 companies or 73.3% which can be predicted correctly by the logistic regression model, while the other 4 companies are not predicted accurately. Thus overall it means that 24 samples of 36 samples or 66.7% of samples can be predicted accurately by the logistic regression model. The high percentage of the accuracy of the classification table supports the absence of significant differences in the predicted and observational data which indicate a good logistic regression model.

Table 6 Omnibus Test Results

		Chi-square	df	Sig.
Step 1	Step	10.010	4	.040
	Block	10.010	4	.040
	Model	10.010	4	.040

Decrease value -2 Log likelihood of 48.902 - 38.892 = 10.010 or can be seen in Table 5.7 on the Chi-square value with a significance value of 0.040. The value of 0.040 <0.05 indicates that there is at least 1 (one) independent variable that affects the practice of income smoothing (income smoothing)

4.1.4 Multicollinearity Test

A good regression model is a regression with no strong correlation between the independent variables. Multicollinearity testing in logistic regression uses a correlation matrix between

independent variables. If the value of the correlation coefficient between the independent variables is less than 0.8, it means that there is no serious multicollinearity symptom between the independent variables results can be seen in Table 7 below:

Table 7. Multicollinearity Test Results

		Constant	UP	PROFIT	LV	KINS
Step 1	Constant	1.000	-.447	.034	-.202	-.062
	UP	-.447	1.000	-.439	-.573	-.223
	PROFIT	.034	-.439	1.000	.335	-.085
	LV	-.202	-.573	.335	1.000	-.297
	KINS	-.062	-.223	-.085	-.297	1.000

Based on Table 7 it can be seen that the results of the Correlation Matrix between variables do not have a coefficient value greater than 0.8. So it can be concluded that there are no symptoms of multicollinearity between the independent variables.

4.1.5 Assessing the Regression Model Formed

The logistic regression model that was formed resulted in the value of the regression coefficient and significance of α (0.05). The regression coefficient of each tested variable shows the form of the relationship between variables. Hypothesis testing is done by comparing the significance value (sig) with the error rate (α). If sig <α, it can be said that the independent variable has a significant effect on the dependent variable. The results of the logistic regression model can be seen in Table 8 below:

Table 8. Logistic Regression Model Test Results

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	UP	.028	.014	3.968	1	.046	1.028
	PROFIT	-1.786	3.874	.212	1	.645	.168
	LV	-.420	3.088	.018	1	.892	.657
	KINS	-.424	1.281	.110	1	.740	.654
	Constant	-2.114	1.027	4.238	1	.040	.121

1) Hypothesis 1 in this study is company size has a positive effect on income smoothing. Based on Table 5.10, the regression coefficient value for the company size is positive (0.028) with a significance value of 0.046 <0.05. This shows that company size has a positive effect on income smoothing, which means H1 is accepted.
2) Hypothesis 2 in this study is that profitability has a positive effect on income smoothing. Based on table 5.9 the value of the negative profitability regression coefficient (-1.786) with a significance value of 0.645> 0.05. This shows that profitability has no effect on income smoothing, which means that H2 is rejected.
3) Hypothesis 3 in this study is that leverage has a positive effect on income smoothing. Based on table 5.9, the value of the leverage regression coefficient is negative (-0.420) with a significance value of 0.892> 0.05. This shows that leverage has no effect on income smoothing, which means that H3 is rejected.
4) Hypothesis 4 in this study is that institutional ownership has a negative effect on income smoothing. Based on table 5.9, the regression coefficient value for

institutional ownership is negative (-0.424) with a significance value of 0.740> 0.05. This shows that institutional ownership has no effect on income smoothing, which means that H4 is rejected.

4.2 Discussion

4.2.1 Effect of Company Size on Income Smoothing

The first hypothesis states that company size has a positive effect on income smoothing in the mining sector industry listed on the IDX. Based on the test results with the company size variable logistic regression coefficient, it shows that the positive regression coefficient is 0.028 with a significance level of 0.046 which is smaller than α = 0.05 (5 percent). Based on the significance value of the company size variable of 0.046 <0.05, H1 is accepted, this means that company size has a positive effect on income smoothing.
This is in accordance with the theory in this study, namely companies with large sizes have a large incentive to smooth income compared to small companies, because companies that have large amounts of assets will be more noticed by the public and the government. Therefore, large companies will avoid a drastic increase in profit in order to avoid an increase in government costs. On the other hand, a drastic decline in profits signals that the company is in crisis. This will invite government intervention (Moses, 1987). An example that is easily seen is the imposition of taxes (Watts and Zimmerman, 1986).

4.2.2 The Effect of Profitability on Income Smoothing

The second hypothesis states that profitability has a positive effect on income smoothing in the mining sector industry listed on the IDX. Based on the test results with the logistic regression coefficient of the profitability variable, it shows that the negative regression coefficient is -1,786 with a significance level of 0.645 which is greater than α = 0.05 (5 percent). Based on the significance value of the profitability variable of 0.645> 0.05, H2 is rejected, this means that profitability has no effect on income smoothing.

This means that the size of the profitability does not affect the income smoothing action. Management does not choose interests related to bonus schemes (the bonus plan hypothesis), loans (debt covenant hypothesis) and taxes (political cost hypothesis), this causes management to be not motivated to smooth income through these variables. In addition, management may also consider not using earnings as a tool for income smoothing practice because it is vulnerable to external analysis. The outside party is the investor's view of the company's performance assessment. Investors have no view of the company's reported earnings to assess the company's performance because earnings have an accrual component that can be managed using the accounting method by management. Investors are more interested in using cash flow in assessing a company's performance than the company's reported earnings. According to Bernstein (1993) cash provides great liquidity and flexibility. Financial statement analysts acknowledge that cash flow analysis is a valid measure compared to analysis of reported earnings. This is because cash flow is cash and not net income, which must be used to pay off loans and to pay dividends. In addition, a valid measurement of a company's cash inflows and cash outflows is an important assessment in assessing short-term liquidity, long-term solvency, and operating performance.

4.2.3 The Effect of Leverage on Income Smoothing

The third hypothesis states that leverage has a positive effect on income smoothing in the mining sector industry listed on the IDX. Based on the test results with the leverage variable logistic regression coefficient, it shows that the negative regression coefficient is -0.420 with a significance level of 0.892 which is greater than α = 0.05 (5 percent). Based on the significance value of the leverage variable of 0.892> 0.05, H3 is rejected, this means that leverage has no effect on income smoothing.

This is most likely due to the strict debt policy so that companies find it difficult to obtain credit and managers tend not to smooth income through this variable (Herni and Susanto, 2008). This indicates that the size of the company's ability to pay its debts (leverage) has no impact on the company's desire to smooth income. These results also indicate that the size of the company's ability to pay its obligations (leverage) is unable to explain its effect on the income smoothing group and not the income smoothing group. Companies that are able to pay their long-term debt are more likely to refer to companies that are income-leveling than companies with relatively low long-term payment capabilities. Leverage is the ratio between debt and assets which shows how much of the assets are used to guarantee debt. If the leverage is high, it can show the risk of the company's failure to repay the loan will be higher and vice versa. The more capable the company is in fulfilling its payment obligations, which means that the leverage is low, the easier it will be for management to carry out income smoothing. Because they still have a low level of leverage, the company will try to get more loans from creditors. Management performs income smoothing with the aim of showing creditors that the risks are owned by small companies. Creditors tend to refuse to give loans to companies with high profit fluctuation, therefore, management tries to stabilize profits by performing income smoothing actions in order to obtain more loans from creditors.

4.2.4 The Effect of Institutional Ownership on Income Smoothing

The fourth hypothesis states that institutional ownership has a negative effect on income smoothing in the mining sector industry listed on the IDX. Based on the test results with the logistic regression coefficient of institutional ownership variable, it shows that the negative regression coefficient is -0.424 with a significance level of 0.740 which is greater than α = 0.05 (5 percent). Based on the significance value of the institutional ownership variable of 0.740> 0.05, H4 is rejected, this means that institutional ownership has no effect on income
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This means that the size of the percentage of institutional ownership has no effect on income smoothing actions carried out by management. The results of this study are not consistent with the research conducted by Nuraini and Zain (2007) which states that institutional ownership has a significant effect on income smoothing. The results of this study contradict several studies that mostly show significant results and state that the presence of institutional investors can reduce earnings management actions, because institutional investors are considered more experienced (Midiastuti and Machfoedz, 2003). However, the assumption in this condition is that there are sophisticated institutional investors. In reality, not all institutional investors are sophiscated investors. This is especially the case when the number of institutional investors is very small, supervision or monitoring of management performance is to limit management in taking actions or policies that will impact earnings management actions. In addition, Porter's view or concept (in Pranata and Mas'ud 2003) also states that institutional ownership is the owner who focuses more on current earnings, so that institutional ownership does not necessarily

improve effective monitoring of management which will lead to reduced management policies. in doing earnings management.

5 Conclusions and Suggestions

5.1 Conclusions

Based on the results of data analysis and discussion that has been presented, it can be concluded as follows:

1. Company size has a positive effect on income smoothing in the mining sector industry listed on the IDX. Companies with large sizes have a greater incentive to smooth income compared to small companies, because companies that have large amounts of assets will be more noticed by the public and the government. Therefore, large companies will avoid a drastic increase in profit in order to avoid an increase in government costs. On the other hand, a drastic decline in profits signals that the company is in crisis. This will invite government intervention (Moses, 1987). An example that is easily seen is the imposition of taxes (Watts and Zimmerman, 1986).
2. Profitability has no effect on income smoothing in the mining sector industry listed on the IDX. This means that the size of the profitability has no effect on income smoothing. Management does not choose interests related to bonus schemes (the bonus plan hypothesis), loans (debt covenant hypothesis) and taxes (political cost hypothesis), this causes management to be not motivated to smooth income through these variables. In addition, management may also consider not using earnings as a tool for income smoothing practice because it is vulnerable to external analysis. The outside party is the investor's view of the company's performance assessment. The results of this study support the results of research conducted by Butar and Sudarsi (2012), Witjaksono and Tediyanto (2011), Zen and Herman (2007), Dewi (2011), Hartati (2015) which concluded that profitability does not affect income smoothing practices.
3. Leverage has no effect on income smoothing in the mining industry listed on the IDX. This is most likely due to the strict debt policy so that companies find it difficult to obtain credit and managers tend not to smooth income through this variable (Herni and Susanto, 2008). This indicates that the size of the company's ability to pay its debts (leverage) has no impact on the company's desire to carry out earnings management. If the company still has a low level of leverage, the company will try to get more loans from creditors. Creditors tend to refuse to lend to companies with high profit fluctuations because of the high risk of failure, that's why management tries to stabilize profits by taking income smoothing actions in order to get more loans from creditors.
4. Institutional ownership has no effect on income smoothing in the mining sector industry listed on the IDX. The size of the percentage of institutional ownership has no effect on income smoothing. In reality, not all institutional investors are sophiscated investors. Institutional investors only carry out their role as transient investors (temporary owners of companies) who focus only on short-term profits, so that institutional ownership does not necessarily increase effective monitoring of management which will affect management policies in reducing earnings management. This result is in line with research conducted by Butar and Sudarsi (2012), Hartati (2015), Welvin and Arleen (2010), Agustia (2013), Kusumaningtyas

(2012), Murhadi (2009) which states that institutional ownership has no effect on action. profit management.

5.2 Suggestions

Based on the results of the research that has been done, there are several suggestions that can be considered, namely:

1. In this study the coefficient of determination (Nagelkerke R Square) is 0.327 which means that the variability of the dependent variable which can be explained by the variability of the independent variable is only 32.7%, while the rest 67.3% explained by other variables outside this study. For this reason, further research is needed on the factors that influence income smoothing, such as company age, stock price, financial risk, audit quality, type of industry and so on.
2. The study period in this study was only 4 years which resulted in a limited number of samples. For further research, it is better to use a longer observation period, for example 5-6 years to get more accurate research results.
3. This study only uses one type of industry, so it is possible that there will be differences in results when using industrial sector groupings that are listed on the Indonesia Stock Exchange. For future research, we should add other types of companies or compare several different types of industries, so that the sample used can represent all characteristics in the population. So that the level of generalization is better and can be determined for all companies on the Indonesia Stock Exchange.

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