Analysis of Factors Affecting Income Smoothing In Banking Companies Listed In Indonesia Stock Exchange

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Abstract. Income smoothing is a method used by management to reduce the fluctuations in reported earnings to match the company's desired targets. Profit is one of the most important information for decision making. So that management tends to do disfunctional behavior (inappropriate behavior). This study aims to examine the effect of net profit margin, debt to equity ratio, debt to total assets, foreign ownership structure and managerial ownership structure on income smoothing in banking companies listed on the Indonesia Stock Exchange from 2016 to 2018. The sampling method used was purposive sampling method and obtained a sample of 10 companies and observations were made for 3 years, namely 2016-2018, the hypothesis was tested using logistic regression analysis techniques. The results showed that net profit margin has no effect on income smoothing,debt to equity ratio has positive effect on income smoothing, debt to total assets has no effect on income smoothing, foreign ownership structure has no effect on income smoothing, managerial ownership structure has no effect on income smoothing.

Keywords: Net Profit Margin, Debt to Equity Ratio, Debt to Total Assets, Foreign Ownership Structure, Managerial Ownership Structure, Income Smoothing.

Introduction

1.1 Background

The company is an organization formed to achieve a specific goal. One measure of the success (performance) of a company that is often used as the basis for making economic or investment decisions is the profit generated [1].

Financial reports are the main means of obtaining financial information which is communicated to interested parties in making economic decisions. One of the most important information for making decisions is profit. The importance of earnings

information is based on management so that management tends to perform dysfunctional behavior (inappropriate behavior).

Most investors pay great attention to information on the level of profit generated by the company, but without paying attention to the procedure for how that profit is generated. This encourages management to perform several earnings manipulation actions, namely income smoothing. Income smoothing is a method used by management to reduce the fluctuations in reported earnings to match the company's desired targets.

The intense competition in the business and business world is a strong trigger for company management to show the best performance for the company they lead, because the good or bad performance of the company will have an impact on the company's market value in the market and also affect the interest of investors to invest or withdraw their investment from a company [2].

Research on the factors that influence the practice of income smoothing in public companies listed on the Indonesia Stock Exchange has also been carried out, including by [3-5]. This research was conducted again because the factors that influence income smoothing are still an interesting topic to research and there are differences in the results of researchers from previous researchers.

1.2 Formulation Of The problem

Based on the background described above, the formulations of the problems raised are:

1. Does the net profit margin affect the income smoothing practices in banking companies?
2. Does the debt to equity ratio affect the income smoothing practices in banking companies?
3. Does debt to total assets affect income smoothing practices in banking companies?
4. Does the foreign ownership structure affect the income smoothing practices in banking companies?
5. Does the managerial ownership structure affect the income smoothing practices in banking companies?

1.3 Research Purposes

Referring to the above problems, the purpose of this research is to find out:

1. To analyze the effect of net profit margin on income smoothing practices in banking companies.
2. To analyze the effect of the debt to equity ratio on income smoothing practices in banking companies.
3. To analyze the effect of debt to total assets on income smoothing practices in banking companies.
4. To analyze the effect of foreign ownership structure on income smoothing practices in banking companies.
5. To analyze the effect of managerial ownership structure on income smoothing practices in banking companies.

1.4 Research Utility

The uses and benefits of research are:

1. For Students

It is hoped that the results of this study will be useful to add insight from knowledge, especially regarding income smoothing and the factors that influence it. In addition, this research can be used as a reference for development for further research, especially in relation to the income smoothing theory.

2. For Educational Institutions (Faculties / Universities)
   From the results of this study, it is hoped that it can add to the literature and references for students as a reference and basis for similar research in the future and can be used as a comparison material for further research.
3. For the Company
   Through this research, it is hoped that it can provide information to company management or investors about several factors that influence income smoothing action. So that users of financial reports are more aware of the financial statements produced by the company to be taken into consideration in their decisions before deciding to do income smoothing.

2 Literature Review

2.1 Theoretical Basis

2.1.1 Agency Theory

According to [6] defines agency theory as the relationship between the agent (management of a business) and the principal (business owner). In an agency relationship, there is a contract letter where one or more people (principal) order another person (agent) to perform a service on behalf of the principal and authorize the agent to make the best decisions for the principal. Agency theory illustrates that the company is a meeting point between shareholders and managers.

The principal entrusts the decision-making to the agent, which means that the two parties have mutually agreed on the responsibilities assigned to the agent. Agency theory deals with efforts to solve problems that arise in agency relationships. Agency problems arise if there are differences in the goals (goals) between the agent and the principal and there are difficulties or require expensive costs for the principal to constantly monitor the actions taken by the agent.

2.1.2 Earnings Management

In general, the meaning of profit is information contained in a financial report and is important information for both parties within the company and outside the company to determine future profits. On the other hand, accountants define profit from the point of view of the company as a unit. Operational accounting profit is defined as the difference between the realized revenue from transactions that occur during one period and the costs associated with that income [7].

Earning management according to [8] is a method used by managers to systematically and deliberately influence earnings figures by choosing accounting and accounting procedures that aim to maximize manager utility and firm value.

Earnings management also adds bias to financial reporting and can annoy users of financial statements who believe in engineered profit figures or as unengineered profit figures. According to [9] earnings management is one of the factors that affect the

credibility and reliability of financial statements, because it can cause bias in financial reports in making decisions that originate from financial reports.

2.1.3 Income Smoothing

The practice of income smoothing is carried out by company management which can lead to inadequate disclosure of earnings in financial reports, even appearing to be misleading. This results in investors not having accurate information about profits, so that investors fail to assess their investment risk. The choice of accounting method that presents an average profit from year to year is one of the things that management and investors really like, because average profits indicate that the company is strong and stable [10].

One pattern or management action on earnings that can be done is income smoothing *(income smoothing)*. Income smoothing can be viewed as a deliberate process of normalizing profits in order to achieve a desired trend or level. Income smoothing is a deliberate reduction or fluctuation of several levels of profit that are currently considered normal by the company [7].

2.2 Previous Research Results

"The effect of company size, company profitability ratio, net profit margin, financial leverage ratio, debt to equity ratio to income smoothing practices in banking companies listed on the IDX for the 2007-2009 period"[11]. Using the practice of income smoothing as the dependent variable and company size, company profitability ratio, net profit margin, financial leverage ratio, debt to equity ratio as independent variables. The data analysis technique used is Binominal Logistic Regression. The results of the study found that firm size has an effect on income smoothing practices, while profitability, net profit margin, financial leverage (debt to total assets) and debit to equity ratio have no effect on income smoothing.

"The effect of company size, return on assets, net profit margin, debt to total assets, debt to equity ratio on income smoothing practices in manufacturing companies listed on the IDX 2009-2011 period". Using income smoothing as the dependent variable and company size, return on assets, net profit margin, debt to total assets and debt to equity ratio as independent variables. The data analysis technique used is binary logistic regression. The results show that company size has an effect on income smoothing practices, while return on assets, net profit margin, debt to total assets and debt to equity ratio do not affect income smoothing practices.

"The influence of company size, debt to equity ratio, profitability and institutions on income smoothing practices in banking companies listed on the IDX 2009-2011 period"[12]. Using income smoothing as the dependent variable and company size, debt to equity ratio, profitability and institutional ownership as independent variables. The data analysis technique used in this study was logistic regression. The results of this study state that the debt to equity ratio has an influence on income smoothing practices, while company size, profitability and institutional share ownership have no effect on income smoothing.

“The effect of audit quality, economic crisis and company size on income smoothing practices in manufacturing companies listed on the IDX for the period 2010-2012”. Using income smoothing as the dependent variable and audit quality, economic crisis, and firm size as independent variables. Income smoothing behavior by Asian transportation firms. The results of this study state that company size and economic crisis have an influence on

income smoothing practices, while audit quality has no effect on income smoothing practices.

"The effect of profitability, company size and leverage on income smoothing practices in manufacturing companies listed on the IDX 2010-2012 period". Using income smoothing as the dependent variable and profitability, firm size and leverage as independent variables. The results of this study indicate that income smoothing, profitability, company size, and leverage have no effect on income smoothing practices.

3.1 Frame of Mind

The practice of income smoothing originates from the existence of agency theory which is caused by the related parties, namely the principal and the agent, having conflicting interests. The limited access that the principal has to the management of the company causes the manager (agent) to present information that does not reflect the real condition of the company. This research will examine the factors that are thought to influence the practice of earning equipment which include net profit margin, debt to equity ratio, debt to total assets, foreign ownership structure and managerial ownership structure.

Net profit margin interpreted as the level of efficiency of the company in reducing costs in the company, the level of net profit margin will affect profit growth [13].

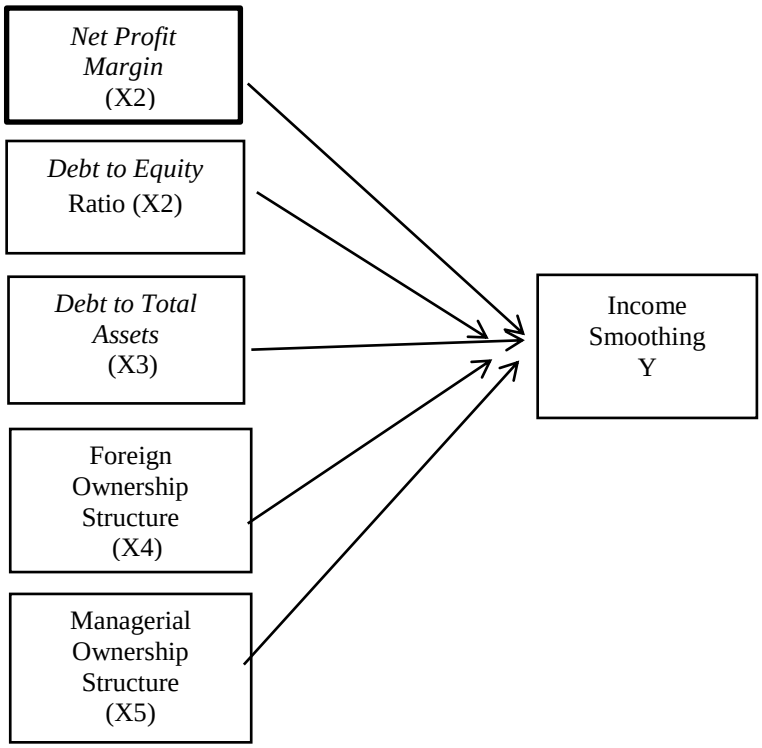

Figure 3.1. Framework of mind

3.2 Hypothesis

3.2.1 Effect of Net Profit Margin on Profit Equipment Practices

*Net profit margin*or this net income is thought to affect the practice of earning equipment, because logically this margin is directly related to the profit equipment object and reflects the manager's motivation to even out income [14]. The impact of net profit margin on earnings equipment actions is suspected because the average company has not performed well enough, so that management practices earnings equipment to improve company performance so that it looks effective in the eyes of investors [15].

The net profit margin has a negative effect on earning equipment practices [16]. The net profit margin has a negative effect on income smoothing practices [17]. Likewise, the results found by [18] in the results of his research which stated that the net profit margin has a negative effect on the practice of earning equipment. Based on the theoretical basis and several previous studies, the hypotheses developed in this study are:

H1: Net profit margin has a negative effect on income smoothing practices.

3.2.2 Effect of Debt to Equity Ratio on Earning Equipment Practices

Debt to equity ratio is the proportion of the use of debt given by creditors to the company to the capital owned [2]. This ratio is also useful for knowing the amount provided by the loan (creditor) with the owner of the company. The higher the debt to equity ratio, the greater the total debt composition compared to the total equity. There is a positive influence between debt to equity ratio and income smoothing [16]. The lower the debt to equity ratio, the higher the company's ability to pay all its liabilities. The greater the proportion of debt used for the capital structure of a company, the greater the liabilities Based on the theoretical basis and several previous studies, the hypotheses developed in this study are:

H2: Debt to equity ratio has a positive effect on earning equipment practices.

3.2.3 Effect of Debt to Total Assets on Earning Equipment Practices

*Debt to total assets*refers to how far a company depends on creditors in financing the company's assets [19]. Debt to total assets obtained through total debt divided by total assets. Any 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.The results of researchers state that financial leverage, provide by debt to total assets, has a positive effect on income smoothing [5]. Debt to total assets has a positive effect on income smoothing practices [4]. Based on the theoretical basis and several previous studies, the hypotheses developed in this study are:

H3: Debt to total assets has a positive effect on income smoothing practices.

3.2.4 The Effect of Foreign Ownership Structure on Income Smoothing Practices

Foreign ownership in a company is a party that is considered concerned about improving good corporate governance [20]. A bad relationship between shareholders and managers causes company performance to decline, but when the relationship between shareholders and managers can be controlled, the company's performance can be better. The results of [21] research state that foreign ownership has a positive effect on earnings management. The results of [22] state that the structure of foreign ownership has a positive effect on

income smoothing practices. Based on the theoretical basis and several previous studies, the hypotheses developed by this researcher are:

H4: The structure of foreign ownership has a positive effect on income smoothing practices

3.2.5 The Effect of Managerial Ownership Structure on Income Smoothing Practices

Based on the statement of financial accounting concept (SFAC) No.1, earnings information is generally the main concern in estimating performance or management's accountability. The results of [22] study state that managerial ownership structure and earnings management are positively related. The results of study state that managerial ownership structure has a positive effect on income smoothing practices Based on the theoretical basis and several previous studies, the hypotheses developed by this researcher are:

H5: Managerial ownership structure has a positive effect on income smoothing practices.

4.1 Research Location

This research was conducted on banking industry sector companies listed on the Indonesian Stock Exchange (IDX) in the 2016 - 2018 period by accessing the website *www.idx.co.id*.

4.2 Research Object

The object of this research is the financial statements of each banking company listed on the Indonesian Stock Exchange (IDX) from 2016 to 2018.The object of this research is to analyze the effect of net profit margin, debt to equity ratio, debt to total assets, foreign ownership structure and managerial ownership structure on income smoothing practices.

4.3 Variable Identification

4.3.1 Dependent Variable

The dependent variable (Y) is the variable that is influenced or the variable that is the result of the independent variable [23]. The dependent variable in this study is income smoothing.

4.3.2 Independent Variable

The independent variable (X) is the variable that affects or causes the change or the emergence of the dependent variable (dependent) [23]. The independent variables in this study are net profit margin (NPM), debt to equity ratio (DER), debt to total assets (DTAR), foreign ownership structure (FOR) and manager ownership structure (KPMJ).

4.4 Operational Definition of Variables

4.4.1 Dependent Variable

The dependent variable (dependent) in this study is income smoothing as measured by a nominal scale. The measurement of income smoothing uses the Eckel index. The Eckel

index is used to identify whether a company practices income smoothing or not. The formula used is as follows:

$$\text{Eckel} = \frac{\text{CV } \Delta \text{I}}{\text{CV } \Delta \text{S}} \quad (1)$$

Information :

CV: Variable variation coefficient, i.e. the standard deviation divided by the expected value, from 2016-2018 earnings

Δ I: change in profit in one period

Δ S: change in income in one period

CV I and S values are calculated by the formula:ΔΔ

$$\text{CVI or CVS} = \Delta\Delta\sqrt{\frac{\sum(\Delta x - \Delta x)^2}{n-1}}\Delta x \quad (2)$$

Information :

Δ x : change in profit (I) or change in income (S) between year n-1 to year n

Δ X: the average change in profit (I) or income (S) between year n-1 to year n

n: number of years observed

Profit (I) used in this research is net profit after tax. The chosen net profit after tax refers to the reason that the return obtained by investors on their stock investment is based on net profit after tax.

The criteria for companies that are indicated to do or not do income smoothing as this criterion are the same as the dummy method which is formed by giving a value of 1 or 0, a value of 1 for companies that do not smooth income and a value of 0 for companies that do income smoothing. the income smoothing index value is greater than 1 (one), meaning that the company is not classified as a company that does income smoothing, on the contrary, if the income smoothing index is less than 1 (one), then the company is classified as a company that does income smoothing.

4.4.2 Independent Variable

4.4.2.1 Net profit margin

This ratio is very logical in the practice of income smoothing because it is directly related to actual profits. This ratio is measured between the ratio of profit after tax to total sales. Net profit margin is calculated using the formula [11]

$$\text{NPM} = \frac{Laba\ bersih\ setelah\ pajak}{Total\ penjualan} \quad (3)$$

4.4.2.2 Debt to equity ratio

*Debt to equity ratio*is the ratio used to assess debt to equity. The lower the debt to equity ratio, the higher the company's ability to pay all its liabilities [2].

$$\text{DER} = \frac{Total\ Hutang}{Total\ Modal} \quad (4)$$

4.4.2.3 Debt to Total Assets

Debt to total assets aims to determine the effect of the proportion of debt ownership on management motivation in performing income smoothing [19]. Debt to total assets is measured by the ratio between total debt and total assets [5].

$$\text{DTAR} = \frac{Total\ Hutang}{Total\ Aktiva} \quad (5)$$

4.4.2.4 Ownership Structure

Foreign ownership structure. The foreign ownership structure is the portion of the out-standard share held by investors or foreign capital (foreing investors), namely companies owned by individuals, legal entities, governments and their parts with foreign status to the total share capital in circulation [24]. Foreign Ownership Structure is calculated using a formula.

$$\text{FOR} = \frac{Jumlah\ saham\ pihak\ asing}{Total\ Modal\ Saham} \quad (6)$$

Managerial ownership structure is the percentage of total share ownership by management of all share capital of the company being managed [22]. The conflict of interest between principles and agents increases with the increase in managerial ownership structure in a company. The indicator used to measure the managerial ownership structure is the percentage of the number of shares owned by the management of all company capital owned [25]. According to [25], the Managerial Ownership Structure is calculated by the formula:

$$\text{KPMJ} = \frac{Jumlah\ Saham\ yang\ Dimiliki\ Pihak\ Manajemen}{Total\ Modal\ Saham} \quad (7)$$

4.5.1 Types of Data

4.5.1.1 Quantitative Data

Quantitative data is data in the form of numbers [23]. The quantitative data used in this study are the financial statements of banking industry companies listed on the Indonesia Stock Exchange (BEI) for the 2016-2018 period.

4.5.1.2 Qualitative Data

Qualitative data, namely data in the form of words, sentences, schemes and pictures [23]. The qualitative data used in this study is an overview of banking companies listed on the Indonesia Stock Exchange (BEI) for the 2016-2018 period.

4.5.2 Data Sources

Sources of data in this study come from banking company financial reports published on the Indonesia Stock Exchange for the 2016-2018 period. The data source comes from the Indonesian Capital Market Directory (ICMD) 2016-2018, the IDX website namely www.idx.co.id.

4.6 Sample Determination Method

Population is a generalization area consisting of objects or subjects that have certain qualities or characteristics that are applied by researchers to study and then draw conclusions [23].

The sample is an important part of the number and characteristics of the population [23]. The method of determining the sample is done by using purposive sampling technique, which is a method of determining the sample using several criteria in this study, namely:

1. All banking companies listed on the IDX in 2016-2018.
2. Banking company that publishes annual reports from 2016-2018.
3. Companies that have complete data according to research variables published from 2016 - 2018.

The sample in this study can be seen in the following table:

Table 4.1. Sample Determination Criteria

No.	Company Criteria	amount
1	All banking companies listed on the IDX in 2016-2018.	42
2	Banking companies that do not publish annual reports from 2016-2018.	(2)
3	Banking companies that do not have complete data according to research variables published from 2016-2018.	(30)
Number of Company Samples		**10**
Number of samples 10 x 3		**30**

Source: Data processed (2019)

4.8 Data Analysis Techniques

4.8.1 Descriptive Statistics

Descriptive statistics are statistics used to analyze data by describing or describing the data that has been collected as it is without intending to make general conclusions or generalizations [23]. Descriptive statistics are presented to provide information on the characteristics of the research variables, especially regarding the mean, maximum, minimum and standard deviation.

4.8.2 Multicollinearity Test

A good regression method is in the absence of strong correlation symptoms among the independent variables. Multicollinearity testing in logistic regression uses metrics to see the magnitude of the correlation between the independent variables. If the correlation matrix is smaller than 0.8, it means that there are no serious multicollinearity symptoms between the independent variables [26].

4.8.3 Feasibility Test Model

1. Feasibility Model

Regression feasibility model is assessed using Hosmer & Lemeshow's Fit Test. Probability value in this research was 5% (α = 0,05). If the statistical value of Hosmer & Lemeshow's Fit Test is greater than 0,05, the null hypothesis can't be rejected. It means that the model is able to predict the observation value or it can be considered that the model is acceptable because it is in accordance with the observation data. The basis for decision making using this test is as follow:

a. If the probbility > alpha 0,05, then the model is not suitable/feasible to use.
b. If the probbility ≤ alpha 0,05, then the model is feasible to use.

2. Assessing Overall Model (Overall Model Fit)

The examination was conducted by comparing a value between -2 log likelihood (-2LL) at the beginning (Block Number = 0) and -2 log likelihood value (-2LL) at the end (Block Number = 1). The minus in the value between the initial -2LL function (initial - 2LL function) and the -2LL value in the next step (final -2LL) shows that the hypothesized model is fit with the data or shows a good regression model [26].

3. The Coefficient of Determination (Nagelkerke R Square)

The amount of coefficient of determination in The logistic regression model was indicated by the Nagelkerke R Square value. The Nagelkerke R Square value was the variability of the dependent variable that could be explained by the independent variable, while the rest was explained by other variables outside the research model [26].

4. Assessing Classification Matrix

Classification matrix shows the predictive power of the regression model to predict the likelihood of the dependent variable being expressed in percent [26].

4.8.4 Logistic Regression Analysis

Hypothesis test was conducted by using logistic regression because dependent variable used in this used was dummy variables. In the logistic regression test, the researcher tested whether the probability of the occurrence of the dependent variable could be predicted with the independent variable [26]. Logistic regression analysis aims to overcome the weaknesses of the linear probability model that gives unsatisfactory results because it produces an estimated probability of less than 0 or greater than 1. Data analysis techniques using logistic regression do not require normality tests on the independent variable and ignore heteroscedasticity.

The logistic regression model formed resulted in a regression coefficient and significant value. The regression coefficient of each tested variable showed the form of the relationship between the variables. Hypothesis testing was carried out by comparing the significance value (sig) with the error rate (alpha). If the significance value was smaller than alpha, then the independent variable had a significant effect on the dependent variable. The hypothesis was accepted if the significance value was below 5% or α = 0,05%.

The equation of logistic analysis is presented below:

$$Ln\ \frac{PL}{1-PL} = \alpha + \beta_1\ (ROA) + \beta_2\ (DER) + \beta_3\ (DPR) + \beta_4\ (NPM)\ e \qquad (8)$$

Information:
PL = income smoothing
NPM = Net Profit Margin
DER = Debt to equity ratio
DTAR = Debt to Total Assets
FOR = Foreign Ownership Structure
KPMJ = Managerial Ownership Structure

α = Constants or points of intersection with y axis, if x = 0
β_1 : β_2: β_3 : β_4 = Regression coefficient
e = Confounding Variables

4.8.5 Assessing Former Logistic Regression Model

Formed regression model resulted coefficient and significant value α (0,05). The regression coefficient of each tested variable showed the form of the relationship between variables. Hypothesis test was conducted by comparing the significance value (sig) with the error rate (α). If sig <α (0,05), it can be considered that the load variable has a significant effect on the dependent variable [26].

5.1 The History of Indonesia Stock Exchange

Historically, the capital market existed long before Indonesia's independence. The capital market or stock exchange has existed since the Dutch colonial in 1912 in Batavia. The capital market was established by the Dutch East Indies government for the benefit of the colonial government or VOC.

5 Results

5.1 Descriptive Statistics

Descriptive statistic analysis is statistic methods that have function to describe the data that have been collected. Descriptive statistics provide an overview or description of data seen from the mean, median, mode, standard deviation, maximum and minimum. Descriptive statistics describe data into information that is easier to understand.

Table 5.1. Result of Descriptive Statistic Test

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
NPM	30	-11.65	43.37	14.4367	11.72685
DER	30	.43	17.95	5.9833	4.53729
DTAR	30	.00	1.44	.8247	.27074
FOR	30	.06	3.45	1.0966	.66600
KPMJ	30	.05	15.98	2.1654	2.85345
PL	30	.00	1.00	.6333	.49013
Valid N (listwise)	30				

Based on Descriptive statistic test result in Table 5.1, it can be described as follow:

1. Variable of income smoothing (Y) is a dummy variable with a category for companies that do income smoothing given a value of 0 and for companies that do not smooth income a value of 1.The income smoothing variable has a minimum value of 0 and a maximum value of 1 with an average value (mean) of 0,6333 and a standard deviation of 0,49013.
2. The variable of net profit margin has a minimum value of -11,65 and a maximum value of 43,37 with an average (mean) value of 14,4367 and a standard deviation of 11,72685.

3. The debt to equity ratio variable has a minimum value of 0,43 and a maximum value of 17,95 with a mean value of 5,9833 and a standard deviation of 4,53729.
4. The debt to total asset variable has a minimum value of 0 and a maximum value of 1,44 with an average (mean) value of 0,8247 and a standard deviation of 0,27074.
5. The foreign ownership structure variable has a minimum value of 0,06 and a maximum value of 3,45 with an average (mean) value of 1,0966 and a standard deviation of 0,66600.
6. The managerial ownership structure variable has a minimum value of 0,05 and a maximum value of 15,98 with an average (mean) value of 2,1654 and a standard deviation of 2,85345

5.2 Multicollinearity Test

Table 5.2. Multicollinearity Test Result

Correlation Matrix

		Constant	NPM	DER	DTAR	FOR	KPMJ
Step 1	Constant	1.000	-.263	-.510	-.839	.149	.153
	NPM	-.263	1.000	.288	-.046	.012	-.424
	DER	-.510	.288	1.000	.228	-.515	-.047
	DTAR	-.839	-.046	.228	1.000	-.323	-.176
	FOR	.149	.012	-.515	-.323	1.000	-.102
	KPMJ	.153	-.424	-.047	-.176	-.102	1.000

Based on table 5.2 above, the test results show that there is no correlation coefficient between variables greater than 0,8. Therefore, it can be concluded that there are no significant multicollinearity symptoms between these independent variables.

5.3 Logistic Regression Test Result

1. Assessing Regression Model Feasibility

Regression model feasibility is determined by values from the Hosmer and Lemeshow Goodness of Fit Test. If the statistical value of the Hosmer and Lemeshow Goodness of Fit Test is greater than 0,05, the null hypothesis can't be rejected. It means that the model is able to predict its observation value or it is considered that the model is acceptable because it is in accordance with the observation data. Table 5.3 confirms the results of the Hosmer and lameshow statistics:

Table 5.3. Regression Model Feasibility Test Result

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	12.745	8	.121

Based on table 5.3, it can be known that statistic value of Hosmer Lemeshow is 0,121 that is greater than 0,05. Thus, it can be considered that the model is able to predict the value of the observations or in other words the model is acceptable.

2. Assessing the overall model (overall model fit)

Testing was carried out by comparing the value between -2 log likelihood at the beginning (block number = 0) with -2 log likelihood value at the end (block number = 1). Reducing the value between the initial -2LL function and the -2LL value in the next initial step

showed that the hypothesized variable is fit with the data. Table 5.4 presents the results of the overall model assessment, as follows:

Table 5.4. Assessing the overall model

Iteration History[a,b,c,d]

Iteration		-2 Log likelihood	Coefficients					
			Constant	NPM	DER	DTAR	FOR	KPMJ
Step 1	1	28.190	3.196	-.008	-.241	-1.590	.045	.073
	2	27.042	4.585	-.012	-.347	-2.598	.217	.098
	3	26.936	5.119	-.013	-.394	-3.024	.333	.102
	4	26.935	5.192	-.013	-.401	-3.082	.351	.103
	5	26.935	5.193	-.013	-.401	-3.083	.351	.103
	6	26.935	5.193	-.013	-.401	-3.083	.351	.103

a. Method: Enter

b. Constant is included in the model.

c. Initial -2 Log Likelihood: 39.429

d. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Based on table 5.4, research's result of overall model can be known that the first value is 28,190, the second value is 27,042, the third value is 26,936, the fourth value is 26,935, the fifth value is 26,935 and the sixth value is 26,935. This shows a good regression model or it can be considered that the hypothesized model fits (fit) the data.

3. Coefficient of Determination (Nagelkerke R Square)

The amount of determination coefficient in The logistic regression model was indicated by the Nagelkerke R Square value. The Nagelkerke R Square value was the variability of the dependent variable that could be explained by the independent variable. While the rest was explained by other variables outside the research. The results of the Nagelkerke R Square test are shown in table 5.5 below:

Table 5.5. Coefficient of Determination (Nagelkerke R Square)

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	26.935[a]	.341	.466

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Based on table above, it presents that value of determination coefficient (Nagelkerke R Square) is 0,466. It means that the variability of the dependent variable that can be explained by the independent variable of 0,466.

4. Assessing Classification Matrix

Classification matrix is to find out the accuracy of predictions for companies that do income smoothing not to do so. The results of the classification matrix test are shown in table 5.6 below:

Table 5.6. Classification Matrix Test Result

Classification Table[a]

Observed			Predicted		
			PL		Percentage Correct
			.00	1.00	
Step 1	PL	.00	7	4	63.6
		1.00	1	18	94.7
	Overall Percentage				83.3

a. The cut value is .500

Based on table 5.6 above, The results of testing the predictive power of the regression model to predict the possibility of companies doing income smoothing are 63,6%. this shows that by using the regression model, there are 18 (94,7%) observations predicted to smooth income from a total of 30 observations of companies that perform income smoothing. The predictive power of the regression model to predict the possibility of companies not doing income smoothing is 94,7%. This shows that by using the regression model, there is 1 (94,7%) observations that is predicted not to do income smoothing. Overall the accuracy of classified predictions was 83,3%.

5.4 Assessing Formed Regression Model

Formed logistic regression model resulted in and significant and regression coefficient value of α (0,05). The results of test of the logistic regression model formed can be shown in table 5.7 below:

Table 5.7. Hypothesis Test Result

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	NPM	-.013	.048	.076	1	.783	.987
	DER	.401	.192	4.375	1	.036	1.493
	DTAR	-3.083	2.561	1.449	1	.229	.046
	FOR	.351	.835	.177	1	.674	1.421
	KPMJ	.103	.202	.259	1	.611	1.108
	Constant	5.193	2.546	4.160	1	.041	180.077

a. Variable(s) entered on step 1: NPM, DER, DTAR, FOR, KPMJ.

Table 5.7 shows logistic regression test results at a significant level (α) 5 percent. The test results produce the following regression models:

$$\text{Ln } \frac{PL}{1-PL} = 5{,}193 - 0{,}013 + 0{,}401 - 3{,}083 + 0{,}351 + 0{,}103$$

Based on regression model, it can be interpreted the results below:

1. Constant value was 5,193, it means that if the net profit margin (NPM), debt to equity ratio (DER), debt to total assets (DTAR), foreign ownership structure (FOR), managerial ownership structure (KPMJ) are equal to zero, then the factors that influence the company to smooth income a factor of 0,000 ($e^{5,193}$).
2. Net Profit Margin

Variable of net profit margin had regression coefficient value of -0,013 with a significant value of 0,783 that was greater than α 0,05. It means changes in financial risk have no effect on income smoothing practices.

3. Debt to equity ratio
   The debt to equity ratio variable had a regression coefficient of 0,401 with a significant value of 0,036 that was smaller than α 0,05. It means changes in financial risk have a positive effect on income smoothing practices.
4. Dept to total asset
   The debt to total asset variable had a regression coefficient of -3,083 with a significant value of 0,229 that was greater than α 0,05. It means changes in financial risk have no effect on income smoothing practices.
5. Foreign Ownership Structure
   The foreign ownership structure variable had a regression coefficient of 0,351 with a significant value of 0,674 that was greater than α 0,05. It means changes in financial risk have no effect on income smoothing practices.
6. Managerial Ownership Structure
   Variable of Managerial Ownership Structure had regression coefficient value of 0,103 with a significant value of 0,611 that was greater than α 0,05. It means changes in financial risk have no effect on income smoothing practices.

6 Discussion

6.1 The Effect of Net Profit Margin toward Income Smoothing

The first hypothesis stated that the net profit margin had a negative effect on income smoothing practices. Based on the results of the analysis, it showed that the net profit margin variable had a significance value of 0,783 that was greater than α 0,05, with a coefficient of -0,013. Thus, the first hypothesis (H1) was rejected. It means that the net profit margin has no effect on income smoothing practices.

The ratio of net profit margin was measured between the ratio of profit after tax to total sales. Net profit margin did not affect the practice of income smoothing because the level of a company's net profit margin did not affect the practice of income smoothing in a company.

The results of this research was in line with the results of research conducted by [15] that stated that net profit margin has no effect on income smoothing practices.

6.2 The Effect of Dept to Equity Ratio toward Income Smoothing

The second hypothesis stated that the debt to equity ratio had a positive effect on income smoothing practices. Based on the results of the analysis, it showed that the variable debt to equity ratio had a significant value of 0,036 that was smaller than α 0,05, with a coefficient of 0,401, so the second hypothesis (H2) was accepted. It means that the debt to equity ratio has a positive effect toward income smoothing practices.

Debt to equity ratio was a ratio comparing the amount of debt to equity owned by a company. The results of this research indicated the debt to equity ratio has a positive effect on income smoothing practices. This showed that the higher the debt to equity ratio, the lower the income smoothing was because the higher the debt to equity ratio, the higher the profit that the company would receive. Thus, the company did not do income smoothing because most of the funds they manage were third party funds that were considered as debt

in accounting. The greater the capital of the third parties they managed, the higher the operating profit.

The results of this research were in line with the results of research conducted by [18] that stated that debt to equity ratio has a positive effect on income smoothing practices.

6.3 The Effect of Debt tp Total Asset toward Income Smoothing Practice

The third hypothesis stated that debt to total assets has a positive effect on income smoothing practices. Based on the analysis results, it showed that the debt to total assets variable haf a significant value of 0,229 that greater than α 0,05, with a coefficient of -3,083, so the third hypothesis (H3) was rejected. It means that debt to total assets has no effect on income smoothing practices.

Debt to total assets referred to the extent to that a company depended on creditors in financing the company's assets obtained through total debt divided by total assets. It did not affect debt to total assets on income smoothing because the level of debt to total assets of a company did not affect the income smoothing practice of a company.

The results of this research were in line with the results of research conducted by [4]. It stated that debt to total assets had no effect on income smoothing practices.

6.4 The Effect of Foreign Ownership Structure Against Income Smoothing Practices

The fourth hypothesis stated that foreign ownership structure had a positive effect on income smoothing practices. Based on the results of the analysis, it showed that the foreign ownership structure variable had a significant value of 0,674 that was greater than α 0,05, with a coefficient of 0,351. Thus, the fourth hypothesis (H4) was rejected, it means that the foreign ownership structure has no effect on income smoothing practices.

Based on the analyzed data, it could be seen that foreign ownership had no effect on income smoothing practices. Thus, the amount of foreign share ownership did not affect the actions of managers in carrying out income smoothing practices. The high and low percentage of share ownership by foreign parties had no effect on income smoothing. Foreign ownership is not effective in suppressing income smoothing actions that come from sales manipulation, reducing discretionary costs such as advertising costs, administrative costs and selling costs that are not directly related to business operations. Thus, foreign investors were unable to detect the occurrence income smoothing through discretionary cost reduction.

The results of this research were in line with the results of research conducted by [15]. It stated that foreign ownership structure has no effect on income smoothing practices.

6.5 The Effect of Managerial Ownership of Income Smoothing Practices

The fifth hypothesis stated that managerial ownership structure had a positive effect on income smoothing practices. Based on the results of the analysis, it showed that the managerial ownership structure variable obtained a significant value of 0,611 that was greater than α 0,05, with a coefficient of 0,103. Thus, the fifth hypothesis (H5) was rejected. It means that managerial ownership structure had no effect on income smoothing practices.

This was because the greater the proportion of managerial ownership in a company would be able to minimize agency problems between the manager (agent) and shareholders

(principal) that could align and align the interests between managers and shareholders. The company's managers also act as holders of company shares. Thus, the information held by managers was likely to be conveyed objectively to shareholders. However, by looking at the test results, it showed that managerial ownership had no effect on income smoothing practice because shares owned by management. It consisted of managers, the board of commissioners and the board of directors, having a low share ownership or minority shares compared to institutional share ownership and public.

7 Conclusion and Suggestion

7.1 Conclusion

1. Net profit margin does not affect income smoothing practice. This is because the size of a company's net profit margin does not affect the practice of income smoothing in a company.
2. Debt to equity ratio has a positive effect on income smoothing practices. This shows that the higher the debt to equity ratio, the income smoothing will increase because the company the higher the level of debt to equity ratio, the higher the profit, the company will receive.
3. Debt to total assets has no effect toward income smoothing practices. This is because the size of the debt to total assets of a company does not affect the practice of income smoothing in a company.
4. The foreign ownership structure has no effect on income smoothing practices. This is because if the share of foreign parties increases. It does not guarantee that it will reduce income smoothing practices because foreign ownership is not effective in suppressing income smoothing actions.
5. Managerial ownership structure has no effect on income smoothing practices. This is because the shares owned by management have a low shareholding or minority shares compared to institutional and public ownership.

7.2 Suggestion

Based on the data and conclusion above, this research have limitations that still need to be developed in further research, the suggestions that can be given are as follows:

1. This research only uses variable of net profit margin, debt to equity ratio, debt to total assets, foreign ownership structure and managerial ownership structure. For further research, it is expected to use or add other variables which are predicted to affect income smoothing, such as firm value, free cash flow, and institutional ownership structure.
2. This research only uses the Eckel Index (1981), further research can use models or other index measurements such as the Michhelson Index (1995) to classify companies that do income smoothing and those that do not.
3. This research is only conducted on banking companies. Future research can use all companies listed on the Indonesia Stock Exchange to increase the research population.

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