The Effect of Financial Performance to Income Smoothing Practice in Property and Real Estate Companies Listed on Indonesia Stock Exchange

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Abstract-Study aims to obtain empirical evidence of the influence of financial performance proxied by profitability, liquidity and capital structure to income smoothing practice. The population of this study covers property and real estate companies at Indonesia Stock Exchange on period 2014-2017. The indicators which are used to measure income smoothing practice was measured using Eckel index. Mechanical sample selection using purposive sampling and acquired 32 companies that were included with period by 4 years in order to get the 128 samples was observed. Model data analysis in this research is logistic regression analysis with using software SPSS 22. From this study, the result of a combination of independent variables that are profitability, liquidity, capital structure and size of company as control variable, are able to explain the variation of the dependent variable is income smoothing practice for 22.10% and 77.90% the rest is explained by other factors were not involved in this model. The results also showed simultaneous independent variables that are profitability, liquidity, and capital structure are significantly influence income smoothing practice. From the test results obtained partial results showing variable profitability (ROE) with positive direction has significant effect to income smoothing practice, variable liquidity (CR) has not significant effect to income smoothing practice, and variable capital structure (DER) with positive direction has significant effect to income smoothing practice.

Keywords: financial performance, profitability, liquidity, capital structure, size of company, income smoothing

I. INTRODUCTION

Income smoothing is a form of income engineering designed to eliminate fluctuations in a series of income [1]. Management's actions to make income smoothing are generally based on various reasons including meeting internal targets, meeting external parties' expectations, making stable profits, and making financial statements appear to be good for the benefit of the company. In some previous studies, profitability, liquidity, capital structure, and Size of Company are factors that influence income smoothing [2]. Several studies on income smoothing practices have been carried out, which revealed that profitability has a significant effect on income smoothing practices. One of the patterns of earnings management is income smoothing where management tries to stabilize the company's profits over several periods with a specific purpose. This condition is motivated because interested parties use bad risks, namely high risk for them is more profitable with stable profit compared to fluctuating profit. Stable profit reflects a more certain situation and is not high risk for the future [3].

The reason researchers took the factors that influence income smoothing practices in the form of profitability, liquidity, capital structure, and Size of Company due to inconsistencies in the results of previous studies [4]. The author takes property and real estate companies as objects of research because in addition to the company's rapid development, the property and real estate business is also a business that is sure to always grow rapidly every year. The author took data from 2014-2017 with the reason of using the latest research period.

Based on the description above, the writer is interested in taking research with the title: "The Effect of Financial Performance to Income Smoothing Practice in Property and Real Estate Companies Listed in Indonesia Stock Exchange."

II. METHODS

A. Population and Research Sample

The population used in this study are property and real estate companies listed on the Indonesia Stock Exchange for the 2014-2017 period with a total of around 48 companies. In this study secondary data consists of financial reports and annual reports on property and real estate companies located at www.idx.co.id.

The sampling technique used in this study was purposive sampling, namely taking non-randomly, or in other words sampling taken based on certain considerations in accordance with the research objectives.

B. Dependent / Bound Variables (Y) Income Smoothing

Income smoothing is one of the patterns of earnings management and is seen as an effort deliberately carried out by management by transferring income from a high period of income to a less profitable period with a view to normalizing



(1)

the profits earned in achieving the desired level by company management [5].

Researchers use the Eckel index to prove whether the company is making income smoothing or not [6]. The comparison of the coefficients of this variation results in index numbers known as income smoothing indices with the following formula:

Index Eckel= $(CV \Delta I)/(CV \Delta S)$

Information:

- CV: The coefficient of variation of variables, namely the standard deviation of changes in earnings and changes in sales divided by the expected value of changes in earnings (I) and changes in sales (S).
- Δ S: Changes in sales that occur in a period.
- Δ I: Changes in profits that occur in a period.

Based on the criteria for companies that perform income smoothing actions are:

- If the income smoothing index is> 1, it is classified as a company that does not make income smoothing (not income smoothing).
- If the income smoothing index is <1, then it is classified as a company that makes income smoothing (income smoothing).

To facilitate research, a code for classification of companies is given:

0 =Not income smoothing

1 = Profit level

To calculate $CV\Delta I$ or $CV\Delta S$ the formula can be used:

CV ΔI or CV $\Delta S = \sqrt{(\sum (\Delta x - \Delta x)^2)/(n-1)} : \Delta X$ (2)

Information:

- Δx : Change in profit (I) or sales (S) between years n and n-1
- Δx: The average change in profit (I) or sales (S) between years n and n-1
- n: The number of years observed.

C. Independent Variable (X)

1) Profitability (X_1) : To assess the profitability of a company can use the ratio of net profit margin (NPM), return on assets (ROA), and return on equity (ROE) [7]. Profitability ratios can be measured using return on equity, which are formulated as follows:

 $ROE = (Net Income)/(Total Equity) \times 100\%$ (3)

2) Liquidity (X_2) : Liquidity is: "... a ratio that describes the ability of a company to fulfill its short-term (debt) obligations.

To calculate liquidity can be calculated using Current Ratio [7] which is measured by using the following formula:

$$CR = (Current Asset)/(Current Liability) \times 100\%$$
 (4)

3) Capital structure (X_3) : The capital structure can be measured by measuring the balance between the obligations held by the capital itself. To analyze the capital structure, the Debt to Equity Ratio (DER) ratio can be used [5]. The formula for finding DER can be used as a comparison between total debt and total equity as follows:

DER = (Total Liability)/(Total Equity) x 100%(5)

4) Size of company (X_4): Size of Company describes the size of the company [5,8]. The size of the business is viewed from the business field that is run. Size of Company is a description of the financial ability of a company within a certain period based on assets owned. Size of Company is formulated using natural logarithms (Ln) of total assets which can be formulated as follows:

Size of Company =
$$Ln$$
 Total Assets (6)

III. RESULTS AND DISCUSSION

A. Data Collection Result

Based on the predetermined sample criteria, there were 32 eligible populations observed, of which the observation period was used for 4 periods from 2014 to 2017, so the total sample used in this study was 128 samples. The sample details in this study are presented in table below.

TABLE I. SAMPLE CRITERIA

Sampling Criteria	Total
Property and real estate companies listed on the	48
Indonesia Stock Exchange until 2017	
Property and real estate companies whose financial	10
statements have reported losses during the 2014-2017	
period	6
Property and real estate companies whose financial	
data are not available in full during the 2014-2017	
period	
Total Sample	32
Total Observation 4 years	128

B. Description Data Analysis

Based on table below, it can be seen that from 32 property and real estate companies in the study over a period of 4 years starting from the period of 2014 to 2017, there are 22 property and real estate companies or 68.8% in which there are income smoothing practices or included in profit smoothing company (Smoother). And there are also 10 property and real estate companies or 31.3% which are included in the company not income smoothing (Non-Smoother).



 TABLE II.
 Status of Profit Level Companies (Y) (Variable Dummy)

Description	Frequency	Valid	Valid	Cumulative
			Percent	Percent
Not Income	10	31.3	31.3	31,3
Smoothing				
Income	22	68,8	68,8	100,00
Smoothing				
Total	32	100.00	100.00	

Based on table III the number of observation data used was 128 sample data. From the results of research data shows that the profitability variable proxied by return on equity (ROE) in the table above obtained the lowest value (minimum) of 0.0004 and has the highest value (maximum) of 0.3229 with an average value of 0.1072. The average value of the profitability variables means that the average profit generated by the company is 10.72% of the total equity owned by the company. The standard deviation of 0.0795 shows the variation found in the profitability of property and real estate companies.

The liquidity variable proxied by the current ratio (CR) in the table, obtained the maximum value (highest) of 8.8010 and the minimum (lowest) value of 0.5276 with an average value (mean) of 2.3196. The average value of the variable liquidity means that the average total current asset of the companies is 231.96% of the total short-term liabilities of the company. The standard deviation of 1.6688 shows the variation in the liquidity of property and real estate companies.

The capital structure variable proxied by the debt to equity ratio (DER) in the table, obtained the maximum (highest) value of 3.7010 and the minimum (lowest) value of 0.0681 with an average value (mean) of 0.7734. The average value of the capital structure variables means that the average total liability of the company is 77.34% of the total equity of the company. The standard deviation of 0.5133 shows the variation in the capital structure of property and real estate companies.

The company size variable in table III shows that the variable has the lowest value (minimum) of 18.9845 and the highest value (maximum) of 24.7623 with an average value (mean) of 22.3500. The standard deviation of 1.3062 shows the variation found in the size of the company type property and real estate companies.

TABLE III. RESULTS OF DESCRIPTIVE STATISTICAL ANALYSIS FOR INDEPENDENT VARIABLES

Description	Ν	Mean	Min	Max	Std. Dev.
ROE	128	.10717	.0004	.3229	.0795524
CR	128	2.3196	.5267	8.8010	1.6688377
DER	128	.77342	.0681	3.7010	.5133004
LNASSET	128	22.350075	18.9845	24.7623	1.3062763
Valid N	128				
(listwise)					

1) Logistic analysis regression: To assess the overall fit model in a logistic regression model, it can be done by comparing the values of log likelihood in the Block Number = 0 with a value of $-2 \log$ in the Block Number = 1 [9,10].

Based on table IV, because the value of 2 log likelihood in Block Number = 0 is greater than the value of -2 log likelihood Block Number = 1, it can be said that the regression model is good, which means the addition of profitability, liquidity, capital structure and company size variables into the model shows the model that is hypothesized fit with the data.

TABLE IV.	VALUE COMPARISON (-2 EARLY LOG LIKEHOOD WITH -2 FINAL LOG LIKEHOOD)
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- 2 Log Likehood Early (Block Number = 0)	158.998
- 2 Log Likehood Final (Block Number = 1)	137.102

2) Determination coefficient: Table V shows that the value of Nagelkerke R square, seen from the results of data processing output Nagelkerke R square value is equal to 0.221, which means the variability of the dependent variable that can be explained by the independent variable is 22.10%, the remaining 77.90% is explained by other variables not included into research models such as profitability, liquidity, capital structure, and company savings:

TABLE V. RESULTS OF THE DETERMINATION COEFFICIENT ANALYSIS

Step	-2 Log	Cox & Snell	Nagelkerke R
	likelihood	R Square	Square
1	137.102a	.157	.221

3) Partial research hypothesis analysis: In testing the hypothesis with logistic regression, it is enough to see 1 Variables in the Equation, in the Significant column compared to the level of 0.05 ($\alpha = 0.05$) [8]. If the significance level is <0.05, Ha is accepted. In the logistic regression equation test, the regression model in the following table is obtained:

TABLE VI. RESULTS OF LOGISTIC REGRESSION HYPOTHESIS ANALYSIS

Variable	В	Sig
ROE	6.985	.027
CR	.155	.233
DER	2.060	.001
LN ASSET	629	.005
Constant	12.401	.007

Based on a series of tests conducted on the regression model and research variables, a summary of the results of the research hypothesis can be obtained which can be seen in the following table:

TABLE VII. HYPOTHESIS TESTING RESULTS

Hypothesis	Hypothesis Statement	Significance Value	Result
	Profitability (ROE) has	0.027 < 0.05	H01 = Denied
	a positive effect on		Ha1 = Accepted
H1	income smoothing		(Significant
	practices		influence)
	Liquidity (CR) has a	0.233 > 0.05	H02 = Received
	positive effect on		Ha2 = Rejected
H2	income smoothing		(No significant
	practices		effect)
	Capital Structure	0.001 < 0.05	H03 = Denied
	(DER) has a positive		Ha3 = Accepted
H3	effect on income		(Significant
	smoothing practices		influence)
	Company size has a	0.005 < 0.05	H04 = Denied
	negative effect on		Ha4 = Accepted
H4	income smoothing		(Significant
	practices		influence)



C. Analysis

1) Influence of profitability against profit leveling: The first hypothesis states that profitability proxied by Return of Equity (ROE) has a significant effect on income smoothing practices. In table VI the output shows the significant value for profitability (ROE) is 0.027. Significant value of 0.027 indicates that the significance value has a smaller value than the significance level ($\alpha = 0.05$). The direction of the positive regression coefficient is 6.985, which means that the greater the profitability of a company, the larger the company practices income smoothing.

The profitability variable represented by the Return of Equity has a positive effect on income smoothing practices. This states that profitability affects ROE (Return on Equity) on income smoothing practices because Return on Equity is a measure of profitability in terms of investors and a measure of a company's ability to generate profits based on certain share capital. *Return on Equity* (ROE) is often considered by investors in determining the options for investing.

2) Influence of liquidity against profit flattening: The second hypothesis states that the variable liquidity with the direction of positive regression coefficient is 0.155, does not significantly influence income smoothing practices. The output in table VI shows the significant value for liquidity is 0.233. The significance value is greater than the significant level ($\alpha = 0.05$) which means that the variable liquidity does not have a significant effect on income smoothing practices.

Liquidity variables have no significant effect on income smoothing practices. This shows that investors tend to only pay attention to earnings reports. Provided that the profit generated by the company is stable, the low high liquidity will not affect the investor's assessment of the company's management in paying its short-term liabilities. Thus, managers do not need to practice income smoothing.

3) Influence of capital structure on profit flattening: The second hypothesis states that the capital structure proxied by debt to equity ratio (DER) has a significant effect on income smoothing practices. In table VI the output shows that the significant value for capital structure (DER) is 0.001. Significant value of 0.001 shows that the significance value has a value smaller than the significance level ($\alpha = 0.05$) which means that the capital structure variable (DER) has a significant effect on income smoothing practices. The direction of the positive regression coefficient is 2,060, which means that the greater the capital structure (DER) of a company, the larger the company practices income smoothing.

In this study the capital structure was measured by a debt to equity ratio (DER). The higher the debt to equity ratio (DER) shows the composition of total debt (short-term and long-term) is greater than the total capital itself, thus impacting the greater the burden on the company to outsiders (creditors). The amount of debt burden borne by the company, the greater the risk faced by investors so that investors will ask for a higher level of profit. This can also trigger a company to practice income smoothing.

4) Influence of company size on income smoothing: The fourth hypothesis states that the firm size variable has a significant effect on income smoothing practices. The output in table VI shows the significant value for the size of the company is 0.005. The significance value is smaller than the significant level ($\alpha = 0.05$) which means that the firm size variable has a significant effect on income smoothing practices. The direction of the negative regression coefficient is -0.629, which means that the larger the size of the company, the smaller the company practices income smoothing. The relationship of firm size to income smoothing cannot be separated from the hypothesis of political costs, because the public sector (government) has the authority to influence the distribution of wealth among various groups of people. The larger the size of the company tends to be the subject of stricter audits from the government and the general public, both in terms of control and audit conducted competently, so that management will find it difficult to make income smoothing.

IV. CONCLUSION

Of the criteria made, the number of samples used in this study amounted to 32 companies of property and real estate companies listed on the Indonesia Stock Exchange (IDX) for 4 years from 2014-2017 so that the total number of samples used was 128 annual reports of companies analyzed. Based on the description above, it can be concluded as follows:

- The results of this study indicate that profitability (ROE) has a significant effect and has a positive relationship towards income smoothing practices. That is, the greater the level of profitability of a company, the greater the probability of the company to make income smoothing.
- Liquidity does not significantly affect income smoothing. This means that the level or level of liquidity of a company does not affect the company to make income smoothing.
- The capital structure has a significant effect and has a positive relationship towards income smoothing practices. That is, the greater capital structures of a company, the greater the probability of the company to make income smoothing.
- Company size has a significant effect and has a negative relationship towards income smoothing practices. That is, the greater the size of a company, the less likely the company is to make income smoothing.

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