



## Impact of Leverage and Firm Size on Earnings Management in Indonesia

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### **Abstract**

This study aimed to determine the effect of leverage and firm size toward earnings management. This study used a sample of the financial report data from manufacturing companies listed on the Indonesia stock exchange for the 2013-2017 period. The data analysis testing in this study employed EViews (*Econometric Views*). The results showed that the best panel regression model in this study was random effect model. Consistent with agency theory and positive accounting theory, leverage and firm size has a positive effect on the earnings management for manufacturing companies in Indonesia. The empirical results showed that leverage and firm size increases provide encouragement for managers to manipulate earnings.

**Keywords:** Earnings Management; Leverage; Firm Size; Positive Accounting Theory; Agency Theory

### **Introduction**

Earnings management is a serious problem faced by practitioners, accounting and financial academics over the past few decades. Schipper (1989) argues that earnings management is an intentional management intervention in the financial reporting process with the aim of obtaining personal benefits. According to Scott (2015) earnings management is the choice of accounting policies by management that affect earnings. Healy and Wahlen (1999) assume earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcome that depend on reported accounting numbers. The problem of earnings management does not only occur in developed countries (the Enron case, WorldCom case, Xerox case etc)), but also in developing countries, such as Indonesia. There are some companies have been entangled in earnings management cases include PT Kimia Farma Tbk (2001), PT Indofarma Tbk (2001), PT Katarina Utama Tbk (2010) and most recently PT Inovisi Infracom Tbk (2014). The increasing attention to the quality of reported earnings makes the study of earnings management still important and relevant to be discussed (Levitt., 2000) and also research on earnings management in emerging market received great attention from researchers (Bao and Lewellyn., 2016).

Positive accounting theory has highlighted hypotheses for earnings management such as debt covenants, management compensation contracts, and political costs. Debt covenant hypothesis of positive

accounting theory (Watts & Zimmerman., 1986) presented that the closer a company with the violation of credit agreement based on accounting was more allowed the company manager to select the accounting procedure which moved the reported profit from the next period to now. Thus, the link between debt contracts and opportunistic behavior of earnings manipulation indicates a possible relationship between debt policy and earnings management (Lazzem and Jilani., 2018).

Some studies that focus on these relationships still produce mixed results. Research conducted by Defond and Jimbalvo (1994) and Chamberlain et al (2014) found that leverage has a positive effect on earnings management when companies want to reduce the likelihood of violating debt agreements and increase the bargaining value of companies during debt negotiations. Beatty and Weber (2003), and Dichev and Skinner (2002) indicate that firm have high financial leverage potentially lead to increase accrual earnings management and other earnings increasing accounting choices. This is due to avoid debt covenant violations. Surveyed by Zagers (2009) found that in the firms with increasing financial leverage, leverage lead to earning management with the purpose of impacting on operation cash flow. Sari (2013) suggest that there is a very close relationship between leverage and capital structure and expenditure. Debt is an agreement between a company as a debtor and a creditor. The greater the leverage ratio, the higher the value of the company's debt. Thus, the company's financial leverage can also be a trigger for management to take earnings management. On the other hand, different studies have found a negative effect relationship between leverage and earnings management. Jelinek (2007) suggest that leverage increases will reduce earnings management. Zamri et al (2013), Afza and Rashid (2014) and Lazzem and Jilani (2018) found that the level of leverage was able to reduce earnings management. Companies that have a high level of leverage are likely to face tighter control from the creditor, thus management is less motivated to do earnings management. Vakilafard and Mortazavi (2015) explain that once financial leverage is increasing, the management incentive is decreasing for accrual-based earnings management. Actually, financial leverage increasing and then the pressure of debt covenant and strict audits for leveraged firms lead to limit manager's opportunistic behaviors, then earnings management is going to reduce.

Agency theory used to explain earnings management. Jensen and Meckling (1976) define that agency relations occur when one party gives another party delegation to do work or service and give authority in decision making (Jao & Pagalung., 2011). Earnings management arises due to agency relationships between shareholders (principal) and managers (agents). This agency relationship will create an agency conflict, because there is a difference of interests between the principal and the agent. This conflict will lead to information asymmetry because management does not disclose the information in an honest and transparent way to shareholders. Based on agency theory that the larger companies will faced bigger information asymmetry (Jensen and Meckling., 1976). Large companies face larger agency conflicts which indicate that the possibility of opportunistic behavior will occur even greater. On the other hand, positive accounting theory also gives an argument that companies that have high political cost, their managers will choose the accounting method to suspend the current period earnings to next period and future reported earnings to be minimized. Political costs are accrued because high profitability attracts the attention of consumers and the media. Moses (1997) state that companies are more likely to have a greater incentive for income smoothing (one form of earnings management) compared with small companies, as it has a greater political cost. Political costs occur high due to the profitability of the company that can attract the attention of the media and consumers. Barton and Simko (2002) and Ali et al (2015) have used agency theory to explain the relationship between firm size and earnings management. Barton and Simko (2002), Ali et al (2015), and Turegun (2016) found a positive relationship between company size and earnings management large companies tend to do earnings management because large companies are under great pressure to fulfill the expectations of financial analysts. On the other hand, research conducted by Kim (2003) and Swastika (2013) reject agency theory. The study states that larger companies have strong internal control. Large companies also tend to be audited by big 4 audit companies so that the possibility of engaged in earnings management becomes smaller. Some previous studies still

have mixed results between leverage, firm size and earnings management. These diverse results indicate a research gap. Thus, further research is needed to examine the relationship between leverage and firm size to earnings management.

## ***Methodology***

The population used in this study were the companies listed on the Indonesia Stock Exchange (IDX). The sampling method used was purposive sampling method. These criteria include companies listed on the Indonesia Stock Exchange and in the category of manufacturing companies during the 2013-2017 period. During the 2013-2017 period, the companies' financial and annual reports had been accessible and audited. They have the data needed for the research variables during 2013-2017.

The data analysis testing in this study employed EViews (*Econometric Views*). This study applied panel data regression. There are three types of models, Common Effects Model (CE), Fixed Effects Model (FE), and Random Effects Model (RE). Of the three models that have been estimated, the most appropriate model was chosen based on the characteristics of the data to answer the objectives of the study. The three tests are F Test (Chow Test), Hausman Test, and Lagrange Multiplier (LM) Test.

## ***Results***

### ***Sample Description***

Of the 144 manufacturing companies listed on the Indonesia Stock Exchange, there are 35 companies that inconsistently report financial and annual reports to the Indonesia Stock Exchange. Then, as many as 24 companies used units of currencies other than rupiah and 10 companies did not have the data needed for the research variables. Therefore, the samples in this study were as many as 75 manufacturing companies with the years of observation from 2013 to 2017.

### ***The Most Appropriate Regression Model Selection***

The panel data regression model is divided into three models, namely common effects, fixed effects and random effects. The first test was Chow test to see the best model between common effects and fixed effects. The results obtained in the Chow test are fixed effects as the best model. Then proceed to the second test with the Hausman test to see the best model between fixed effect and random effect. The results obtained in this test are random effects as the best model. Then the most appropriate panel data regression model in this study is the random effect model.

### ***Regression Analysis***

The regression model used in this study was the random effect model. The inferential statistical results from random effect testing are as follows.

**Tabel 1** Inferential statistical results from random effect testing

	Coefficient	T-statistic	Prob
C	-2.243568	-12.53541	0.0000
Leverage (X1)	0.278612	4.330173	0.0000
Ukuran Perusahaan (X2)	0.070515	10.40191	0.0000

From the hypotheses testing, it can be seen that the probability is less than 5% of significant level meaning, then  $H_0$  is rejected and  $H_a$  is accepted. It means that the independent variables partially (individually) have significant effect on the dependent variable. The probability is greater than the significant level of 5%, then  $H_0$  is accepted, and  $H_a$  is rejected which means the independent variables partially (individually) have no effect on the dependent variable.

Based on Table 1, it can be seen that the accepted hypotheses are the hypotheses H1 and H2. The coefficient value  $R^2$  in this study is shown in the R-squared value of 70,9393%. This value means that the independent variables used in this study explain 70,9393% of the dependent variable, and the rest is another variable that was not examined in this study.

### **Discussion**

The results of the first hypothesis study showed that leverage has a positive effect on earnings management. The results of this study support agency theory and positive accounting theory on the debt contract hypothesis, companies that have high leverage tend to do earnings management because the company is threatened with bankruptcy so it is unable to meet debt payments on time. The results of this study are also in line with the research of Defond and Jimbalvo (1994), and Chamberlain et al. (2014) which explain that companies tend to engage in earnings management when the condition of the company approaches the violation of the debt agreement.

The results of the study showed that the size of the company has a positive effect on earnings management. The results of the study support agency theory which states that the larger the company, the greater information asymmetry and agency conflict faced by the company. The results of this study are in line with the research of Barton and Simko (2002) and Ali et al (2015). Their study found a positive relationship between company size and earnings management, the larger the company, the more likely management to do earnings management because large companies are under big pressure to fulfill the expectations of financial analysts.

### **Conclusion**

This study aims to examine the determinants of earnings management behavior. The factors tested are leverage and company size. This study uses samples in the form of financial report data from manufacturing companies listed on the Indonesia stock exchange for the period 2013-2017. The results of this study indicate that leverage is a determinant of earnings management. The results of this study support agency theory and positive accounting theory on the debt contract hypothesis. Companies that have high leverage tend to do earnings management because the company is threatened with bankruptcy so it is unable to meet debt payments on time. The next results also support agency theory that the larger the company, the greater information asymmetry and agency conflict faced by the company. Larger company tend to do earnings management because large companies are under big pressure to fulfill the expectations of financial analysts.

### ***Limitation and Suggestion***

This study has limitations, the inconsistency of the companies listed on the Indonesia Stock Exchange in disclosing information to the public. Many manufacturing companies that have not consistently disclosed financial reports and annual reports in their entirety (for the 2013-2017 observation year), which has greatly reduced the research sample. Future studies are expected to be able to expand the sample using all companies listed on the Indonesia Stock Exchange so that they are better able to describe the actual conditions.

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