# ANALYSIS OF THE INFLUENCE OF CASH HOLDING, PROFITABILITY, AND STOCK PRICE ON INCOME SMOOTHING

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## ABSTRACT

*One of the most important information for management decision making is information on Net Income. Income information will be a major concern in estimating management's performance or accountability. This income information also helps owners or other parties to assess the strength of the company's profits in the future This study aims to re-examine the influence of cash holding, profitability, and stock price on income smoothing. Samples were collected using purposive sampling method. Population of the study included all non-financial corporations listed on Indonesia Stock Exchange for a five-year period between 2015 and 2019. As for samples, they were selected based on several criteria, and only those meeting the criteria were included in the study. based on predetermined criteria, a sample of 160 companies was obtained. Data were analyzed using quantitative approach and multiple linear regression. Results show that cash holding, profitability, and stock price significantly influence income smoothing.*

Key words: cash holding, profitability, stock price, income smoothing.

## INTRODUCTION

Containing information needed by interested parties such as management, stakeholders, creditors, and the government, financial statement reflects conditions of a company. According to Financial Accounting Standards (FAS/PSAK) No. 1 Year 2017 [3], financial statement is prepared to provide information about financial position, financial performance, and cash flow of an entity that is useful for users in making economic decisions. Referring to the above statement, financial statement is a source of information about an entity's financial conditions prepared to meet the needs of diverse parties, both external and internal (Firdaus, 2018). One of the most critical information for decision making is information on net income. Income statement information will be a significant concern in estimating management's performance or accountability. This income information also helps owners or other parties to assess the strength of the company's profits in the future. The importance of this profit information is realized by the management so that the management tend to perform dysfunctional behaviour, i.e. by levelling profits to overcome various conflicts arising between management with various parties concerned with the company.

Income smoothing is a common practice that exists as company's management attempts to reduce increase in reported earnings. This practice shows manager's efforts to make use of company's reporting policies to reduce fluctuations in company's earnings. There will certainly be increase in the quality of information on company's earnings if managers use their policies to deliver their assessment of future earnings (Sanjaya and Suryadi, 2018).

The vital roles of earnings drive management to indulge in income smoothing in attempt to reduce fluctuations in earnings so that the company looks good in the eyes of financial statement users and is able to satisfy the needs of the owners through rise in company's value, creating an impression that the company is at low risk, while at the same time meet the needs of management for compensation and job security (Monica and Sufiyati, 2019). Results of previous researches on income smoothing were varied and inconsistent. Therefore, this study aims to re-examine the influence of cash holding, profitability, and stock price on income smoothing.

## LITERATURE REVIEW

### Agency Theory

According to Jensen and Meckling (1976), agency theory describes the relations between principal(s) and agent (management). According to the theory, shareholders (principal) delegate business decision making authority to the agent in the belief that they can satisfy shareholders' interests. However, in reality, this relationship can be a source of conflict, commonly known as agency conflict.

Zuhriya and Wahidahwati (2015) stated that agency conflict arises when either management or shareholders act in their best interests to maximize their own wealth. Shareholder-management conflicts are triggered by different interests, which are often determined by accounting number or financial statement; this motivates managers to think of ways to use accounting numbers to achieve their goals (Fricilia and Lukman, 2015). Management has more information about the company compared to shareholders, and shareholders rely solely on information provided by the managers. With such asymmetric information, it is difficult for shareholders to monitor managers' actions, allowing managers to indulge in income smoothing. Income smoothing makes shareholders believe that company's earnings are steady and, therefore, managers can maximize their own wealth by receiving compensation and securing their positions.

### Income Smoothing

Income smoothing is one of the patterns of profit management and can be seen as an effort to which is deliberately intended to normalize income (profit) in order to the level desired by management (Yulia, 2013). Income smoothing is defined as a reduction or fluctuations in some levels of profit that are currently considered expected by the company. The purpose of profit levelling is to provide relevant information in predict future profits, increase external perceptions of the company's management capabilities, as well as increase compensation for management.

**Cash Holding**
Teruel et al., (2009) defined cash holding as the ratio of a company’s total cash and cash equivalents to its total assets. According to Dewi (2019), cash holding is company’s most liquid asset that is used by management to finance its operations. Company’s policy to hold cash aims to protect the company from cash deficit, especially when dealing with the unexpected in the future. Referring to Financial Accounting Standards, cash comprises cash on hand and cash equivalent; both are highly liquid, short-term and easy to be converted into certain amount of cash in no time without significant loss in value. The agency's theory states that a conflict between management and shareholders raises management's desire to hold cash holdings. Free cash flow theory states that problems will occur if the company has a large amount of free cash flow. The higher the cash holding, the higher the profit level made by the company.

**Profitability**
Kasmir and Jakfar (2011) stated that “Profitability is the ratio used to measure company’s performance in earning profits and measure effectiveness of a company’s management.” Sudana (2011), similarly, mentioned that “Profitability is the ability of a company to generate profits through resources the company has, including assets, capital or its own sales.” High profitability indicates that a company's performance is good, while a low profitability level can indicate that a company's performance is poor. Companies that obtain low levels of profitability tend to make a profit level, and this is because companies with low profitability levels will give a poor image to the company, and consequently, the performance of a manager looks terrible in investors' eyes.

**Stock Price**
Stock price is determined by supply and demand for the stock. It reflects the value of the company in the eyes of the community (Panggabean and Novita, 2012). If a company’s stock price is high, its value is high in the eyes of the community, and vice versa. The ideal of the stock price fully reflects the company's intrinsic value. The intrinsic value of the stock is reflected in the year-end closing price that will affect the company's value in the market Stock. Changes in the year-end closing share price in the past will be investors' decisions today. Acting manager as the agent will give a signal to investors who act as principal in the form of company information needed by investors to invest its capital, namely financial statements, especially those of concern to the the amount of profit generated by the company.

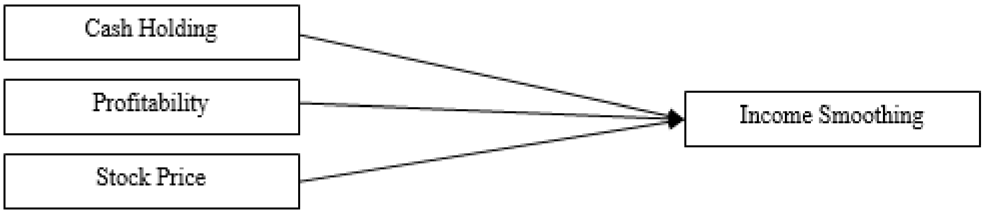
**HYPOTHESIS FORMULATION**

**The influence of cash holding on income smoothing**
Managers use cash holding to minimize external financing and to provide fund for company’s operations. Therefore, cash holding must be liquid, short-term and easy to be converted into certain amount of cash without significant loss in value. As managers are in control of cash holding, they are often motivated to take advantage of the situation for their own interests. With such characteristics, the cash hold by a company may increase prevalence of income smoothing practices (Mambraku and Hadiprajitno, 2014). Some researches revealed the influences of cash holding on income smoothing in a company. A research conducted by Talebnia and Darvish (2012) found high prevalence of agency problems in a company with high free cash flow, which often motivate managers to practice income smoothing. Similarly, Hutauruk (2013) also revealed positive influences of cash holding on income smoothing.
$H_1$: Cash holding positively influences income smoothing.

**The influence of profitability on income smoothing**
Profitability describes a company’s ability to generate profits in certain period of time. The higher the profitability of a company, the greater its performance from investors’ perspective, particularly because high profitability reflects company’s high profits. However, when profitability is high, the indication of income smoothing practice increases due to the fact that company wants to look good in the eyes of the investors at all times. To do that, a company often increases or reduces its actual earnings in certain period to stabilize earnings. Ramanuja and Mertha (2015) in their study concluded that profitability influences income smoothing positively and significantly. A positive influence suggests that the higher the profitability is, the greater the indication of income smoothing in the company will be.
$H_2$: Profitability positively influences income smoothing.

**The influence of stock price on income smoothing**
Higher profits reported by a company often make investors believe in higher returns of investment. In addition to dividends, investors can benefit from higher selling price than the original purchase price. Income smoothing makes a company’s profits stable and shows its stable economic conditions, which can lead to increase in stock price (Fachrorozi, Sinarwati, and Purnamawati, 2017). It indicates income smoothing practice in a company. Fachrorozi, Sinarwati, and Purnamawati (2017) had proved the influence of stock price on income smoothing. Stock price may motivate managers to practice income smoothing as stable profits attract investors to buy company’s stock, which can later increase price of the stock. Higher stock price reflects investors’ positive responses to the company’s financial statement; it is an indication of great performance of the company’s management.
$H_3$: Stock price positively influences income smoothing.

**Research Framework**




## RESEARCH METHODS

**Sample Collection Method**

Population in this research was all non-financial corporations listed on Indonesia Stock Exchange between 2015 and 2019. Samples were selected using purposive sampling technique—sample selection based on certain criteria. In this research, the criteria involved:

1. Non-financial companies listed on Indonesia Stock Exchange and active between 2015 and 2019;
2. Non-financial companies with comprehensive financial statements between 2015 and 2019.

**Analysis Method**

This research involved secondary data. They were pooled data that combined both time-series and cross-section data. The formula for regression analysis is:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

With:

| | |
|---|---|
| Y | = Income Smoothing |
| α | = Constant |
| β1-3 | = Regression coefficient of each factor |
| X1 | = Cash Holding |
| X2 | = Profitability |
| X3 | = Stock Price |

**Dependent Variable**

Dependent variable in this research is income smoothing measured using Eckel's Index (1981):

$$Eckel\ Index = \frac{CV\ \Delta I}{CV\ \Delta}$$

Remark:

| | |
|---|---|
| ΔI | : Changes in income within a period of time |
| ΔS | : Changes in net sales within a period of time |
| CV ΔI | : Coefficient of variation for changes in income |
| CV ΔS | : Coefficient of variation for changes in net sales |

CV ΔI and CV ΔS can be measured using this formula:

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

Remark:

| | |
|---|---|
| ΔI | : Changes in income within a period of time |
| ΔS | : Changes in net sales within a period of time |
| $\Delta\bar{S}$ | : Average changes in net sales |
| n | : The number of observation years |

The criteria for a company committing or not committing income smoothing are as follows:

1. A company practices income smoothing if its income smoothing index is less than one (CV ΔS > CV ΔI);
2. A company does not commit income smoothing if its income smoothing index is greater than one (CV ΔS < CV ΔI).

**Independent Variable**
Independent variables in this research are cash holding, profitability, and stock price.

**Cash Holding**
Cash holding is a ratio that compares a company's total cash and cash equivalents to its assets (Teruel et al, 2009). Cash holding, according to Hutauruk and Wijaya (2013), is calculated using the following formula:

$$Cash\ Holding = \frac{Cash\ Equivalent}{Total\ Asset}$$

**Profitability**
According to Monica and Supiyati (2019), profitability is measured by comparing a company's net income to its total sales as stated in the formula below:

$$NPM = \frac{Net\ Income}{Total\ Sales}$$

**Stock Price**
Stock price is measured according to srock's moves and by using an index number of 1 (if stock price decreases in t period, being lower than its price in t-1 period) and 0 (if stock price does not decrease in t period, compared to its price in t-1 period). Stock price measurement in this research referred to that of Fachrorozi (2017).

**RESULTS AND DISCUSSION**

**Descriptive Statistics**
This research involved 160 companies as samples and an observation period of 5 years. Table 1 illustrates the number of data observed.

**Table 1 Descriptive Statistics**

| | Mean | Std. Deviation | N |
|---|---|---|---|
| IS | ,513157894736 | ,422138079558 | 720 |
| CH | ,864060150375 | ,394033219630 | 720 |
| NPM | ,768120300752 | ,493136452896 | 720 |
| SP | ,396090225563 | ,109812751001 | 720 |

**Results of Hypothesis Testing**
Regression method was used to test all hypotheses, which then generated an R-squared of 44%. It explains that 44% of the variance of income smoothing can be explained by cash holding, profitability, and stock price, whereas the remaining 56% can be explained by other variables.

**Table 2. The Coefficient of Determination Results**

**Model Summary[b]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 1 | ,564[a] | ,527 | ,445 | ,421270779646207 | 2,062 |

a. Predictors: (Constant), SP, NPM, CH

b. Dependent Variable: IS

Simultaneously, data in Table 3 indicate a p-value of 0.00 < 0.05. It shows that independent variables of cash holding, profitability, and stock price simultaneously and significantly influence income smoothing practice in non-financial companies listed on Indonesia Stock Exchange between 2015 and 2019.

**Table 3. F Test Results**

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 749,829 | 15 | 49,9886 | 38,721 | ,000 |
| | Residual | 908,894 | 704 | 1,2910 | | |
| | Total | 1.658,723 | 719 | | | |

a. Dependent Variable: IS

b. Predictors: (Constant), SP, NPM, CH

Results of partial test for each variable can be seen in Table 4.

**Table 4. T-Test Results**

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | VIF |
|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | |
| 1 | (Constant) | 2,609 | ,192 | | 3,170 | ,002 | |
| | CH | ,106 | ,098 | ,099 | 1,086 | ,000 | 1,108 |
| | NPM | ,090 | ,075 | ,105 | 1,202 | ,031 | 1,007 |
| | SP | ,163 | ,350 | ,042 | ,465 | ,043 | 1,102 |

a. Dependent Variable: IS

## DISCUSSION

Results of partial test of each variable indicate that cash holding positively and significantly influences income smoothing. In other words, a company's income smoothing rises as its cash holding gets higher. It can be explained by the fact that cash holding is among significant reasons for managers to improve the company's performance, and therefore practice income smoothing. Cash holding is defined as free cash flow used by a manager to satisfy his own interest above shareholders' interests. Here, a manager's performance is determined by his actions in keeping the company's cash stable. Companies with high cash holding rates, will affect the attractiveness of investors to make investments, so the company tends to take profit leveling actions. The conflict between the manager and the shareholders also raises the management's desire to hold cash in the company. Agency relationships as a contract between one or more people by hiring another person to perform many services in their interests involve surrendering decision-making to the agent. Management, as an agent, will decisions to maintain the company's operational continuity. The manager's performance is seen from the manager's actions to keep the company's cash stagnant. Managers use cash holdings to external funding and the company's operations, because of cash holding that is liquid, short-term and easy to make cash in the amount of without experiencing significant value changes. The manager straightforwardly controls cash holding to motivate the manager to do Private. This can increase the practice of income smoothing due to the characteristics of the amount of cash available in the company.

Results of the test on profitability demonstrate significant influence of the variable on income smoothing. Profitability can motivate a company's management to manage profits; if profitability is low, in general, a manager will perform profit management to save the company's performance. The higher its profitability is—as proxied by net profit margin (NPM)—the more likely it is that a company practices income smoothing. It aims to increase the value of the company in front of potential investors, and attract them to buy its stocks. Investors tend to see income after tax for collection decisions relating to investments that will be done. This is what spurs management to flatten the profit, so that the profit looks stable and the company's performance looks good, so that investors are interested in investing in the company.

Results of the test on stock price indicate that the variable significantly influences income smoothing. Hence, it can be said that higher stock price can lead to higher probability of income smoothing due to the fact that stable profits will entice investors to buy the company's stocks, which can eventually affect stock price. High stock price reflects investors' positive responses to financial statement prepared by a company's management, and it makes its performance look good. This stock price is one indicator that investors use to assess them by looking at its performance. The value of the company is a measure of the company's management's success in past operations and prospects to reassure shareholders. Managers as agents in the company will continue to do their best to the company, so that the company's value in the eyes of investors as principals look good. When the share price is high, the company's value is high, which means the excellent company's performance in the eyes of investors. With good company value, the agent will give an excellent signal to principals/investors so that they want to invest in the company. This principal or investor will invest in a company with a high corporate value, the higher this indicator will indicate that the company's performance is also improving.

## CONCLUSION

Referring to the test results, it can be concluded that cash holding, profitability, and stock price significantly influence income smoothing. The higher the cash a company holds, the higher its income smoothing will be. As to profitability, income smoothing is more likely to happen when profitability is high. Similarly, the higher a company's stock price is, the greater the probability of income smoothing it gets.

**Recommendations**

1. In the future, researches are expected to examine other variables with potentially better influences on income smoothing.
2. It is recommended that future researches can increase the number of samples for more accurate results of study model.

**Limitations**

1. This research involved only cash holding, profitability, and stock price and their influences on income smoothing.
2. Samples in this research were selected using purposive sampling method. This method was preferred as it could provide researchers with the right samples, and hence researchers could obtain data that meet the requirement. However, using of purposive sampling method results in weak external validity or a lack of generalizability of research results.

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