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Choice of accounting versus market-based bonus schemes

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Abstract

The results show that the budget-based compensation creates incentives for managers to select accounting decisions to maximize the value of the bonus. The results of this study support some previous research literature, especially the ratchet-principles. Research in the bonus scheme accounting manager's decision is at to test the bonus scheme in accounting decisions from the perspective of literature and ratchet ratchet principles hypotheses targets. The sample used is a company which reveal salaries and bonuses of corporate

managers. Samples collected 100 companies that publishes an annual report for the year 2010-2013. This research using independent samples t-test and paired sample t-test. The results show that the budget-based compensation creates incentives for managers to select accounting decisions to maximize the value of the bonus. The results of this study support some previous research literature, especially the ratchet-principles.

Keywords: Positive Accounting Theory, Total Accruals, Discretionary Accruals, Bonus Scheme

1. Introduction

From this definition, it can be seen that accounting choice has a broad understanding. Francis (2001) describes the breadth of this understanding into two things, namely the nature of the decision maker and the nature of the choice itself. The breadth of the definition from the dimension of the nature of the decision maker can be seen that in this definition what is meant by decision makers is not only managers, but also includes auditors, audit committee members, and standard setting bodies.

Meanwhile, in terms of the nature of the choice itself, this definition includes the selection of accounting methods permitted by the standard (eg. the selection of FIFO or average in inventory valuation), the use of estimation and judgment (such as in determining the economic life of property and equipment), decisions to disclose information, decisions when to apply an accounting rule, lobbying activities, choices about the presentation of financial statements, choices about the classification of a transaction, choices about aggregate presentation, choices to design a transaction in a certain way to produce the desired financial information, and choices about real decisions about production and investment.

Furthermore, Francis (2001) describes that the broad dimensions in the definition of accounting choice by Fields *et al* include various activities related to accounting information, namely the cash flow dimension (does the accounting choice have an impact on cash flow) and the income dimension (whether accounting choice has an impact on cash flow). it has an effect on income). Market value reflects market decisions about how successful managers have invested the capital that has been entrusted to them, in turning them into larger ones. The greater the MVA, the better the market value of the company in creating wealth for the owners of capital. A negative MVA means that the value of the investment carried out by management is less than the capital submitted to the company by the capital market, which means that wealth has been destroyed.

Research conducted by Isa and Lo (2001) identified that positive EVA is the creator of firm value and negative EVA is value destroyer, and concludes that positive EVA has a higher correlation with MVA than negative EVA. Research conducted by Ury (2013) explains the effect of EVA and MVA on stock returns in LQ 45 index companies in 2009-2011. It shows that EVA can explain stock returns, although in very small and limited portions. Arif *et al* (2013) prove that empirically MVA has a significant effect on the rate of return on shares of the agricultural sector.

Based on the description above, it can be said that EVA and MVA are predictor indicators in the company's efforts to maximize company value which is reflected in stock prices. The stock price is a measure of the company's performance index, namely how far the management has succeeded in managing the company, thus the stock price in the capital market is an indicator of the company's value. Through the calculation of EVA and MVA can provide a shadow for companies related to the increase or decrease in the value of economic profits and the actual added market value that is realized from the company's performance and the stock price of LQ 45 index companies listed on the Indonesia Stock Exchange for the period 2012-2016.

This study aims to obtain empirical evidence that: Economic Value Based (EVA) and Market Value Based (MVA) are predictors of stock prices, Economic Value Based (EVA) is predictors of stock prices, Market Value Based (MVA) is predictors of stock prices.

After the Enron and other major corporate scandals, there has been a lot of legislation such as the Sarbanes-Oxley Act designed to improve corporate accountability (Florou, 2004). Florou also stated that the scandal had caused the accounting profession to rethink the practice of executive compensation. An important part of the general compensation package is the bonus. Companies can use compensation policies through bonuses that function to adjust accounting procedures related to company profits.

Bonus is one of the popular compensation policies, because it concerns the welfare of executives in the company's internal. Related to this problem, accounting researchers have long studied managerial behavior when faced with choices among the best accounting alternatives related to bonus schemes in accounting decisions. Many companies take advantage of the opportunities in accounting rules in financial statements before they are reported to the public to regulate the profits presented.

This has been recognized by economists in the field of accounting and finance for many years. Cornett, *et al* (2006)^[1]. There is consistent evidence of earnings management actions in financial statements by executives with the aim of obtaining compensation (Healy and Wahlen, 1999)^[5]. Viewed from the perspective of positive accounting theory, bonus design has a positive relationship or influence on accounting decisions. Healey (1985)^[4] and Hotlhausen (1995) explain a concept called the fixed target hypothesis which states that if bonus income is zero or below the lower limit and profits exceed the upper limit, managers have incentives to reduce profits, thereby increasing spending. If bonus income is between the upper and lower limits, managers have an incentive to increase profits, thereby capitalizing or deferring expenses.

Florou (2004) states that an analysis of positive accounting theory and the ratchet principle literature reveals an important controversy about the impact of manager bonuses on accounting decisions. A profit-based compensation plan suggests an efficient contract, but an efficient manager contract motivates managers to maximize firm value. Therefore, compensation plans that directly relate managers' compensation to their impact on the firm's market value appear to be more efficient than profit-based plans. There are two basic types of compensation plans to reward managers' performance as measured by accounting numbers, namely bonus plans and performance plans.

Separation of performance is a motivating factor for accounting profit-based compensation plans. Bonus planning provides managers with incentives to maximize firm value. The performance index in the bonus calculation must be correlated with the effect of the manager's actions on firm value. Therefore, the greater the correlation between earnings and the effect of a particular manager's actions on firm value, the more likely a profit-based bonus plan is used to reward managers. Managers in controlling earnings calculations to the extent that they can report any number they want, profit-based bonus plans will not exist for incentive purposes. The market expects managers to manipulate the numbers for their own benefit, reporting high profits arbitrarily and not taking actions that increase profits because they increase firm value. Thus, neither the manager's compensation nor the firm's value will be increased by the profit-based bonus plan. If profit-based bonus plans are used to reward managers for

incentive reasons, there should be restrictions on the methods managers use in calculating earnings (Watts and Zimmerman, 1986). Many empirical studies have examined the effect of bonus plans. The bonus plan parameters are determined so that bonuses are awarded almost annually (Smith and Watts, 1982), and if bonuses can be given the maximum amount is a positive linear function of reported earnings. This has led many researchers to assume that managers' compensation in bonus plans increases as reported earnings increase. In this assumption, an increase in the value of a company's current income statement will increase the value of the current manager's compensation. This results in the bonus plan hypothesis that has been tested in a number of studies, namely: managers who work with bonus plans are more likely to choose accounting procedures that shift earnings in the report from future periods to current periods.

2. Literature review

2.1 Bonus design

Zmijewski & Hagerman (1981) tested the bonus plan hypothesis when investigating the effect of earnings-based compensation plans on the choice of accounting procedures. The bonus plan does not encourage managers to always adopt accounting procedures that disclose reported earnings in the current period. If earnings are now below the target established by the plan (the lower limit) managers have an incentive to reduce reported earnings for the current year and to transfer the earnings for the year will come. If the bonus plan has an upper limit on the maximum transfer for and actual earnings are above this limit, managers have an incentive to reduce currently reported earnings.

Healy (1985)^[4] investigates whether a firm's annual net accruals (the difference between annual earnings defined in the bonus plan and operating cash flows) are affected by limits in the firm's bonus plan. When managers have incentives to reduce earnings, meaning that they are reported if earnings are below the target or above the upper limit (if any), net accruals are more likely to be negative in two cases. If earnings are between the lower and upper bounds, managers have incentives to increase earnings, and net accruals are more likely to be positive.

2.2 Positive Accounting Theory (Fixed Target)

The perspective of a positive accounting theory relationship is one of the bases used to understand bonus design and its implications for investment choices (Florou, 2004). The determinants of accounting choice in this theory have been initiated by Gordon (1964), then expanded by Watts & Zimmerman (1970) with a mechanism to maximize manager welfare. Certain factors are expected to affect the company's cash flow which in turn is influenced by accounting standards, namely: taxes, regulations, manager's compensation, political costs, and changes. Healey (1985)^[4] and Murphy (1999) in response to Watts & Zimmerman (1970) stated that they have the same incentive to decrease or increase accounting earnings, if earnings before discretionary accruals are less than the lower limit or exceed the upper limit of earnings, managers choose accounting techniques to lower earnings. Earnings for future bonus expectations increase. Conversely, if earnings before discretionary accruals exceed the lower limit but not the bonus target, managers choose accounting techniques to increase earnings.

3. Method

Zmijewski and Hagerman (1981) tested the bonus plan hypothesis when investigating the effect of earnings-based compensation plans on the choice of accounting

procedures. The bonus plan does not encourage managers to always adopt accounting procedures that disclose reported earnings in the current period. If earnings are now below the target established by the plan (the lower limit) managers have an incentive to reduce reported earnings for the current year and to transfer earnings for the year will come. If the bonus plan has an upper limit on maximum transfers and actual earnings are above this limit the manager has an incentive to reduce currently reported earnings.

Healy (1985)^[4] formulated that profit consists of two components, namely operating cash flow and total accruals. Furthermore, total accruals based on their nature consist of discretionary accruals and non-discretionary accruals. Nondiscretionary accruals describe the influence of business conditions. Meanwhile, discretionary accruals reflect the manager's choice. Non-discretionary accruals are the part that arises due to economic changes experienced by the company during a certain year. If earnings are formed without including the discretionary accrual component, the effect is usually still felt in subsequent periods because current earnings do not reflect the effects of all changes that occurred in that year. So discretionary accruals increase earnings as a measure of performance because discretionary accruals help reporting earnings that reflect economic events that occurred in that period so that earnings in the next period are correlated with events experienced in the previous period (Guay, *et al*, 1996).

Florou (2004) compares the implications of the ratchet target hypothesis with the fixed target hypothesis that managers' incentives differ only when the actual bonus is between the minimum and maximum bonuses (ie, when the firm's earnings are between the lower and upper bounds). In other words, for this particular earnings term, positive accounting theory predicts that managers may want to reduce investment spending. In contrast, the ratchet-principle literature predicts that managers may want to increase or decrease spending on R&D, advertising, and fixed assets, depending on whether actual performance is below or above targeted performance.

The results of the comparison of the implications of the ratchet target hypothesis with the fixed target hypothesis show a contradiction. The main reason for the above contradiction is that in the fixed target hypothesis, the contract bonus parameter (ie, bonus target) is assumed to be fixed. In contrast, in the ratchet hypothesis, the target performance objective is assumed to increase in the year where the company's performance exceeds the targeted performance, but does not decrease when the company's performance is less than the targeted performance (Florou, 2004). Whether positive accounting theory has better predictive power than the ratchet-principle literature is still a matter to be tested empirically. Total Accruals. The measurement of variables in this study uses the definition of Subramanyam (1996) for accruals, profits, and operating cash flows. Profit (Eartnt) is defined as income before extraordinary items, and operating cash flow (CFOt) is net cash flow from operating activities (Xie, 2001). Meanwhile, total accrual (ACCRt) is measured as the difference between profit and operating cash flow, namely:

$$ACCRt = EARNt - CFOt$$

3.1 Discretionary Accrual

Discretionary accruals are basically accruals that can be controlled by managers in the short term. Therefore, discretionary accruals are items that are vulnerable to the influence of managers' choices on accounting methods. Profit

variables, operating cash flow, and total accruals were deflated by total assets at the beginning of the year (TAt-1). In this research, the Jones model is used to estimate discretionary accruals (Xie, 2001), namely:

$$\begin{aligned} ACCRt / TAT-1 = & a_1 [1 / TAT-1] + a_2 [\Delta \square REVt / \\ & TAT-1] + a_3 [PPET / TAT-1] + et \Delta \square REVt = \\ & \text{Change in sales revenue in year t. } PPET = \text{Gross} \\ & \text{Assets} \end{aligned}$$

Healy's (1985)^[4] Lower Limit states that the formulation and definition of variables used in bonus schemes varies between companies, and even within one company at different times. There are, however, common features of bonus contracts. The reported earnings variables and the lower bound are used in the calculation of the bonus. If the reported profit exceeds the target, then the contract specifies the maximum percentage of the difference that would normally be allocated to a bonus center. If the profit is less than the target, then no funds are allocated to the bonus center.

The lower limit variable is measured by multiplying the total salary and the base salary. Upper Limit A number of schemes set an upper limit on excess profit over target revenue. When the difference between actual and targeted profits is greater than the upper limit, transfers to the bonus center are limited (Healy, 1985)^[4]. The upper limit variable is measured by multiplying the total salary and total remuneration. Murphy's (1999) target collaborates on managers' incentives to manipulate investments when bonuses are between the minimum and maximum limits. Murphy, stated that the compensation rules based on the budget can generate incentives for managers to achieve but not exceed the set performance standards. This of course may vary depending on the actual rules of the compensation agreement. Performance standards arise from the desire to provide incentives while simultaneously paying competitive levels of compensation and forecasts of appropriate performance standards will meet the manager's salary requirements.

Based on the bonus scheme in accounting decisions that maximize the profit function, this study empirically investigates the behavior of managers. Investigation of this phenomenon relates to claims that there are differences in total accruals between bonuses above the upper limit, bonuses below the lower limit, and bonuses within the target; there is a difference in discretionary accruals between bonuses above the upper limit, bonuses below the lower s limit, and bonuses within the target.

4. Result and discussion

The test results show that total accruals and discretionary accruals are valid measuring tools to measure the behavior of managers in companies in the positive accounting theory and ratchet-principle literature. Discretionary accruals are an effective way to reduce reported net income by manipulating accounting policies related to accruals. The results of this study which support the ratchet-principle literature indicate that managers in Indonesia tend to determine earnings or keep earnings from fluctuating. The maintenance of this profit is mostly intended to maintain the stability of the bonus in the following years.

This study has the following limitations.

1. The limited number of samples of companies that disclose salaries and bonuses of company employees.

2. This study makes its own predictions for the profit target, so that it can weaken the validity of the results of this study.
3. The target calculation process is not able to show good analytical results because the database is only in four years. In accordance with the limitations, suggestions for further research are to increase the sample by extending the year of observation. Also expanding the sample by using all companies listed on the Indonesia Stock Exchange, so as to show good analysis results.

5. Conclusion

Taking into account the results of testing bonus schemes which conclude that bonuses vary according to the target, then the manager's performance in year t is rewarded through a higher bonus, but penalized through a higher standard of performance in the coming year (Florou, 2004). The results of this research conclude that there is a weak tendency for bonus schemes in accounting decisions, so these results do not support several previous studies, especially positive accounting theory that has been carried out in the largest industrial companies in the United States. Therefore, this study concludes more sharply that budget-based compensation creates incentives for managers in choosing accounting decisions to maximize bonuses, so these results support several previous studies, especially the ratchet principle literature.

6. References

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