

EFFECT OF CORPORATE TAX RATE REDUCTION ON EARNINGS MANAGEMENT PRACTICES: A CASE STUDY IN INDONESIA

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ABSTRACT

Government of Indonesia has reduced corporate tax rate from 30 percent to 28 percent single tax rate in 2009. This study observes the companies earnings management practices in response to the corporate tax rate reduction. Furthermore, it examines whether earnings management practiced by loss firms is similar to profit firms.

The results suggest that companies perform earnings management in response to corporate tax rate reduction. The earnings management in profit firms is affected by tax incentives (tax planning and net deferred tax liabilities) and non-tax incentives (earnings pressure). Earnings management performed by loss firm is also affected by tax incentives (net deferred tax liabilities) and non-tax incentives (earnings pressure). Meanwhile, sample companies earnings management practices is not affected by the percentage of total paid-up shares of companies traded in Indonesia Stock Exchange (IDX).

Keywords: *corporate tax rate reduction, earnings management, tax incentives, non-tax incentives.*

1. BACKGROUND

Government of Indonesia has published new income tax regulation in 2008, which is Law No.36/2008. It states that since fiscal year 2009 the corporate income tax rate is reduced from 30 percent to a single tax rate of 28 percent and will be 25 percent by 2010. Therefore, regardless of the taxable income tax, the applicable tariff is 28 percent or 25 percent. In addition, listed companies are given additional tariff reduction of five percent if they can fulfill subsequent requirements. Consequently, in fiscal year 2009, the tax rate for listed companies is 23 percent and will be 20 percent in fiscal year 2010.

The change in corporate income tax rates can affect the behavior of companies in managing its financial statements. Changes in corporate income tax rates to a single rate and decreasing income tax rates to 28 percent in 2009 and 25 percent in 2010 can provide incentives to the companies to manage its earnings in order to reduce the taxable income so that the corporate tax expense in the year before the enactment of the new income tax regulation are also getting smaller.

One of management efforts to get benefits from the change in corporate tax rate is tax shifting. Tax shifting means moving the profit earned in the year before the change in corporate tax rates to the year following the change in tax rates. In accounting, the action is acceptable since

accounting follow accrual basis principle that recognizes revenues and expenses in the period it occurred regardless of the time when the cash from the revenues is received or cash for expenses is paid.

Some studies that discussed the relationship between tax reform by the government with earnings management by firms in response to the issue of tax reform are Guenther (1994),

Setiawati (2001), Yin and Cheng (2004), Yamashita and Otagawa (2007), Husni (2010) and Subagyo and Octavia (2010). In those studies, there are nearly different outcomes of the reform of taxation, particularly corporate tax rate reduction. There is research which found out that companies tend to postpone income recognition of the corporation to lower tax rate period (after tax reform) and accelerate the recognition of expenses in higher tax rate period (before tax reform). However, some studies did not find earnings management behavior in response to corporate tax rate reduction.

This study is different from previous studies. Previous studies use tax planning as tax incentive on corporate earnings management practice. In this study, other tax incentive, which is net deferred tax liabilities, is added. This factor is considered capable to detect the possibility of companies doing earnings management in order to avoid losses (Yulianti, 2005). Moreover, we use different operational models to Setiawati (2001), Husni (2010), and Subagyo and Octavia (2010). We use the model of Guenther Current Accrual to get the value of This paper has five sections. Section two describes previous studies and hypotheses development while section three describes research methodology. A discussion of the result and conclusion is offered in section four and five.

2. Previous Researches and Hypotheses Development

Some studies about correlation between earnings management to tax reform are Guenther (1994), Setiawati (2001), Yin and Cheng (2004), Yamashita and Otagawa (2007), Husni (2010), and Subagyo and Octavia (2010).

Guenther (1994) examined the earnings management in response to changes in taxation policy in the United States with the Tax Reform Act in 1986. It proved that current accruals are positively related to debt levels and negatively related to firm size but have no relationship with managerial ownership.

Research conducted by Yin and Cheng (2004) is almost similar to Guenther research (1994). Yin and Cheng investigated the effect of tax incentives and non-tax incentives on earnings management practices carried out by companies in response to changes in tax rates in the United States. Yin and Cheng found out that the companies who earn profit or profit firms are more interested in reducing the discretionary accrual for the tax benefit.

Research conducted by Yamashita and Otagawa (2007) examined whether companies in Japan tailored the book income value in response to corporate tax rate reduction. The taxation reform occurred in 1998. The empirical results confirmed that there is reduction of discretionary accruals during the period prior to the enactment of new lower rates.

In Indonesia, Setiawati (2001) observed the effect of the income tax regulation change in 1994 that was effective as of January 1, 1995 on the earnings management behavior of the companies listed on Jakarta Stock Exchange. However, research results could not prove the existence of firms' behavior that seeks to reduce earnings in 1994 with the purpose of obtaining tax savings in that year.

Husni (2010) conducted similar rese-

arch. In his research, Husni tested whether the issuance of new tax regulation in 2008 that was effective as of January 1, 2009 cause the manager to attempt delaying earnings recognition of period prior to the issuance of new lower rates. The results have not been able to indicate that management manipulated the earnings due to the change in the Income Tax Regulation in 2008.

Research by Subagyo and Octavia (2010) found out that manufacturing companies who manage earnings as a respond to the changes in corporate tax rate in Indonesia are only the profit firms. The companies manipulate earnings in order to minimize corporate tax payments. They also proved that earnings management by profit firms was affected by tax and no-tax incentives, while earnings management done by loss firms was affected by non-tax incentives alone.

Hypotheses Development

In this study, tax reform is associated with earnings management practices by the companies, so hypothesis that can be developed is companies tend to practice earnings management in response to the issue of tax reform by moving net income to the lower tax rate period.

Hypothesis 1: Companies defer (net) income to the lower tax rate period in response to corporate income tax rate reduction

Yin and Cheng (2004) state that companies which have good tax planning would get benefit from tax shields and be able to minimize tax payments. Companies that have good tax planning would tend to reduce the company's net income in order to gain tax advantages.

Hypothesis 2: Tax planning negatively affects the discretionary accrual

Yulianti (2005) states that deferred tax

liabilities (assets) increase when firms accelerate revenue recognition or suspend the recognition of expenses (expenses accelerate or defer income) for accounting purposes compared with tax purposes the companies. With this pattern, the companies would report a higher accounting profit compared to profit for taxation in order to increase the net deferred tax liabilities of the companies and vice versa.

Hypothesis 3: Deferred tax liabilities have net positive effect on discretionary accrual

Yin and Cheng (2004) state that companies in which the profit has reached target, the decline in earnings can be reduced with earnings pressure. If current year profit has exceeded the target set by the manager (at least equal to profit last year) then the companies interested in conducting accruals reduction that lower profits for income smoothing.

Hypothesis 4: Earnings pressures adversely affect the discretionary accrual

Guenther (1994) and Watts and Zimmerman (1986) indicate that companies get tax benefit in the form of tax deductions related to interest payments on debt. Consequently, the companies would adjust its debt level to the average level of its debt in the long term. This occurs because of the tax implications as a factor that encourages firms to increase debt. Companies increased its debt because the loan interest is an expense that could reduce corporate taxes. In this case, it acts as debt tax shields because it can reduce the tax paid by the companies in the form of interest payments to parties that provide loans.

Hypothesis 5: The level of corporate debt has positive influence on discretionary accrual

According to Yin and Cheng (2004), if the companies earned small profit, then the

manager would not try to increase the total accruals, but would minimize the total accruals in order to get compensation in the future. This event is called the earnings bath. The sample firms with ten percent of the lowest ratings ROE tend to decrease accruals during the outstanding period.

Hypothesis 6: Earnings bath negatively affect the discretionary accrual

Richardson and Lanis (2007), Guenther (1994), and Watts and Zimmerman (1978) disclose that larger companies would be more sensitive to political costs and thus be more likely to use accounting methods that reduce the net income of financial statements. Large companies have adequate resources to manipulate the political process as they wish for by using tax planning or regulate their activities to achieve optimum tax savings. Expectation is that large firms are more likely to reduce profits and delayed financial reports taxable

income in response to a reduced tax rate.

Hypothesis 7: Earnings bath negatively affect the discretionary accrual

Under Law No. 36/2008 about Income Tax, there are different rates of corporate income tax, which is 28 percent (effective in 2009) and 25 percent (effective in 2010) for companies that have not gone public as well as companies that have gone public but paid-up shares traded on the IDX is less than 40 percent, and five percent lower for firms that go public with at least 40 percent of its shares traded in IDX. Therefore, listed companies with minimum 40 percent of paid-up shares traded in IDX would perform earnings management in order to respond to changes in income tax rates.

Hypothesis 8: Percentage of total paid-up shares of companies traded on BEI negatively affects the discretionary accrual

3. Research Methodology

To test the hypotheses, the regression model used is:

$$DA_{it} = \alpha + \beta_1 YD_{2008} * TAXPLAN_{it} + \beta_2 YD_{2009} * TAXPLAN_{it} + \beta_3 FD_{it} * TAXPLAN_{it} + \beta_4 NDTL_{it} + \beta_5 FD_{it} * NDTL_{it} + \beta_6 EPRESS_{it} + \beta_7 DEBT_{it} + \beta_8 ERANK_{it} + \beta_9 SIZE_{it} + \beta_{10} STOCK_{it} + \beta_{11} FD_{it} * EPRESS_{it} + \beta_{12} FD_{it} * DEBT_{it} + \beta_{13} FD_{it} * ERANK_{it} + \beta_{14} FD_{it} * SIZE_{it} + \beta_{15} FD_{it} * STOCK_{it} + \varepsilon_{it}$$

Description:

DA_{it}	=	i firms' discretionary accrual at time t observation
$TAXPLAN_{it}$	=	i firms' income tax planning in period t observation
$NDTL_{it}$	=	i firms' annual net deferred tax liabilities in period t
YD_{2008}	=	1 for 2008, and 0 for other years
YD_{2009}	=	1 for the year 2009, and 0 for other years
$EPRESS_{it}$	=	earnings pressure of firm i in period t observation
$DEBT_{it}$	=	i firms' level of debt in period t observation
$ERANK_{it}$	=	i company's ROE ranking in period t observation
$SIZE_{it}$	=	size of firm i in period t observation
$STOCK_{it}$	=	i company's percentage of paid of shares traded on the Stock Exchange during the period of observation t
FD_{it}	=	1 for firms that experienced loss (<i>loss firm</i>) and 0 for a company that earns profit (<i>profit firm</i>)

- α = constant
 $\beta_1 \beta_2 \beta_3 \beta_4 \beta_5 \dots \beta_{15}$ = coefficients of explanatory variables
 ϵ_{it} = disturbance variable of firm i in period t observation

Dependent Variables

The dependent variable in this research is Discretionary Accrual (DA). Discretionary Accrual is the most often used tool to manage earnings. Discretionary Accrual is calculated using the model that Guenther (1994) were modified from the model of Jones (1991). This model uses current accrual portion of total accruals to estimate the value of discretionary accrual and nondiscretionary accruals. This is because current accruals are accruals that affect taxable income (taxable income). The current accrual calculation is:

$$CACC_{it} = (\Delta \text{Current Assets}_{it} - \Delta \text{Cash}_{it}) - (\Delta \text{Current Liabilities}_{it} - \Delta \text{Current maturities of Long-Term Debt}_{it} - \Delta \text{Income Tax Payable}_{it})$$

Guenther (1994) model assumes that at the time of the absence of earnings management, nondiscretionary accrual is a function of changes in sales. Estimation model for nondiscretionary accruals are:

$$CACC_{it} / \text{Total Assets}_{it-1} = \beta (\Delta \text{Sales}_{it} / \text{Total Assets}_{it-1}) + \epsilon_{it}$$

Afterward, discretionary accruals are estimated by subtracting the estimated nondiscretionary accrual of actual total accruals as follows:

$$u_{it} = CACC_{it} / \text{Total Assets}_{it-1} - b (\Delta \text{Sales}_{it} / \text{Total Assets}_{it-1})$$

Independent Variables

Tax planning variable is given the symbol TAXPLAN. TAXPLAN describes tax planning undertaken by the companies before the tax reform that is in 2007 and 2008 where the company tax rate is still high at 30 percent. Tax planning in this study followed research by Yin and Cheng (2004), and calculated using the formula:

$$TAXPLAN = \frac{\sum_{2007}^{2008} (30\% \cdot PTI - CTE) : 2}{TA_{2008}}$$

Where TAXPLAN is tax planning, PTI is pre-tax income, and CTE is current portion of total tax expense.

The variable of net deferred tax liabilities is given the symbol NDTL. NDTL describes changes in annual net deferred tax liabilities. This variable can detect the possibility of corporate earnings management practice to avoid losses. This variable uses the value of changes in net deferred tax liabilities in the Statement of Financial Position (Balance Sheet) of the companies. Deferred tax liabilities (assets) increase when firms accelerate revenue recognition or suspend the recognition of expenses (expenses accelerate or defer income) for accounting purposes compared with tax purposes. Changes in net deferred tax liabilities is calculated using the deferred tax asset and deferred tax liabilities shown in the records of corporate income taxes divided by total assets at the beginning of the year.

The symbol EPRESS represent variable of earnings pressure. Earnings pressure in this study followed the approach taken by the Yin and Cheng (2004), calculated using the formula:

$$EPRESS = (\text{Profit for the year} - \text{last year's profit}) / \text{total assets at beginning of year.}$$

DEBT is the symbol for debt level variable. DEBT describes the company's debt level. The variable is measured by using the ratio of long-term liabilities to total assets at the beginning of the year. According to Guenther (1994), because the use of accounting rates closer to violation

of debt covenant requirements may not be intended to reduce the net income the financial statements to reduce tax.

Earnings bath variable is given the symbol ERANK. This variable is proxy with company's ROE ranking. ERANK is measured by using dummy variables. ERANK is given the number one (1) if it was in the lowest quantile (bottom ten percent) and zero (0) for the other.

The company size variable is represented by the symbol SIZE. The variable is calculated by using the logarithm of total assets.

Percentage of paid-up shares traded in IDX is given the symbol STOCK. This variable is measured using the dummy variables. If the companies' paid-up shares traded in IDX is less than 40 percent, it is given the number zero (0), and if the paid-up shares of company traded on the Stock Exchange is greater than or equal to 40 percent then given the number one (1).

Sample

This research is conducted using secondary data obtained through access to financial data of public companies listed

in Indonesia Stock Exchange, where there are 2 periods of research, namely from the year 2008 to 2009 with 7 types of explanatory variables.

Samples are took with purposive sampling which is part of a non-probability sampling methods. Population members who are not eligible are not selected as research samples. The samples selection is based on two criteria. Firstly, sample companies must publish annual financial reports from 2007 - 2009. The time range was selected so that the research focuses only on the years surrounding the change of the Income Tax Act 2008 to get maximum results. The second criteria is that the company has a complete financial data for the years 2007 - 2009 which is required for the overall variables measurement.

Based on the established criteria, there are 322 final sample companies. Firms in the financial industry (especially banks) in this study is not included. It is due to the difficulty to

obtain regression component needed to get the value of discretionary accruals from firms in the financial industry (especially banks).

**Table 1.
Number of Research Samples**

Information	Total
1. The total sample of companies listed on the Stock Exchange during the period 2008-2009	580
2. Sample companies that do not have complete financial needed to measure the overall variable for the years 2007-2009	256
3. Companies research samples to be outliers	2
Number of Final Samples	322

4. Research Result and Analysis

Descriptive statistics of the 322 observations of companies sampled in the

study from 2008 to 2009 can be seen in the following table:

Table 2.
Descriptive Statistics - All Firms

<i>All firms (n=322)</i>				
Variable	Minimum	Maximum	Mean	Std. Deviation
DA	-3.2054	1.3663	-0.1377	0.4869
TAXPLAN	-0.1598	0.0362	-0.0081	0.0252
NDTL	-0.2874	1.3773	0.0051	0.0978
EPRESS	-1.1804	0.7811	0.0027	0.1533
DEBT	-0.0654	7.7907	0.2642	0.5155
ERANK	0.0000	1.0000	0.0993	0.2996
SIZE	8.6648	13.9892	11.8639	0.9016
STOCK	0.0000	1.0000	0.2142	0.4109

Table two shows that the average of discretionary accrual and tax planning is negative while other variables are positive. This study also uses descriptive analysis to

give an idea of discretionary accruals and control variables namely tax planning and net deferred tax liabilities.

Table 3.
Average DA, TAXPLAN, NDTL Year 2008 and 2009

	2008	2009
DA	-0.2851	0.0097
TAXPLAN	-0.0078	-0.0083
NDTL	0.0100	0.0002

In table three, the average value of negative discretionary accruals in 2008 show that there is a reduction of DA that decrease income. It occurs because the companies suspended its earnings and accelerated the recognition of expenses in 2008 due to the changes in taxation laws, particularly the corporate tax rate reduction. Meanwhile, the positive value of discretionary accruals in 2009 shows that there was DA that raised earnings. Earnings that have been suspended in 2008 were recognized in 2009

that lead to the increase in value of discretionary accrual. This show there was tax saving effort in 2008 that was moved to 2009 where a corporate tax rate is lower.

The average value of tax planning that is negative in Table 3 means that the companies is less aggressive in their tax planning in response to tax rate reduction. The short span of time between the time of new Income Tax regulation ratification with the time of its enforcement make mature companies has not prepared a strategy in

response to reduction in tax rates in order to gain tax advantages. In addition, the reduced tax rate in fiscal year 2010 is greater (from 28 percent to 25 percent) compared to fiscal year 2009 (from 30 percent to 28 percent). This can be an incentive for the managers to formulate better tax planning in order to get a bigger tax savings in 2010.

The average value of net deferred tax liabilities, which are positive, indicates that firms use the deferred tax liabilities in responding to the decreasing tax rates. This occurs because of the temporary differences that can be settled in the future. Value of net deferred tax liabilities in 2008 was higher

than in 2009. It proves that in 2008 the companies accelerate the recognition of incomes or defer recognition of expenses for accounting purposes compared with tax purposes.

This study also uses descriptive analysis to illustrate how the size of each explanatory variable on the size of the earnings management practices by the company (in this case the practice of earnings management with discretionary accrual proxies). We divide it into two categories for each explanatory variable, which is large (50 percent highest values) and small (50 percent lower value).

Table 4.
Average Differences of DA based on the Independent Variables

Variable	Average Discretionary Accrual		t-statistic
	Big	Small	
TAXPLAN	-0.1775	-0.0978	1.3900
NDTL	-0.1334	-0.1419	-2.1509*
EPRESS	-0.1509	-0.1244	0.4036
DEBT	-0.1278	-0.1475	-1.1768
ERANK	-0.2299	-0.0454	2.6748*
SIZE	-0.1491	-0.1263	1.4773
STOCK	-0.2116	-0.0637	0.1285

- Significant at $\alpha = 5\%$

Table four shows that the amount of net deferred tax liabilities and the amount of earnings bath would significantly affect the magnitude of earnings management practices by the companies. Average discretionary accruals, which is more negative on the companies with small net deferred tax liabilities, shows that companies that have big net deferred tax liabilities tends to use less discretionary accruals reduction than the companies that have small tax liabilities. These results are consistent with research conducted by

Yulianti (2005) that conclude large deferred tax liabilities occurred when companies accelerated revenue recognition or suspended the recognition of expenses so that the companies would report a higher accounting profit compared to profit for taxation purposes.

Meanwhile, the more negative average discretionary accruals on the companies that have big earnings bath indicates that firms with high level of earnings bath (companies with low rank level of ROE) use greater discretionary accrual reduction than

the firms with low earnings bath level. It is consistent with research by Yin and Cheng (2004) that states if a company's profit is small, then the manager will not try to increase the total accrual but will minimize the total accrual in order to get compensation in the future.

Testing Basic Assumptions

Regression model does not have multicollinearity problem. None of the explanatory variables has correlation coefficient greater than 0.8 with other explanatory variables.

Table 5.
Test of Basic Assumptions - Multicollinearity

	DA	TAXPLAN	NDTL	EPRESS	DEBT	ERANK	SIZE	STOCK
DA	1	-0.1153	-0.1352	0.0608	-0.1635	0.0973	0.0082	-0.0114
TAXPLAN	-0.1153	1	0.0079	-0.1084	-0.0643	-0.4773	0.1980	0.0113
NDTL	-0.1352	0.007	1	-0.1027	0.6483	0.2464	0.2170	0.0927
EPRESS	0.0608	-0.1084	-0.1027	1	-0.1835	-0.0608	-0.0547	-0.1207
DEBT	-0.1635	-0.0643	0.6483	-0.1835	1	0.1832	0.1636	0.0970
ERANK	0.0973	-0.4773	0.2464	-0.0608	0.1832	1	-0.1199	0.0036
SIZE	0.0082	0.1980	0.2170	-0.0547	0.1636	-0.1199	1	0.0834
STOCK	-0.0114	0.0113	0.0927	-0.1207	0.0970	0.0036	0.0834	1

The model in this initial test did not violate the assumption of homoscedasticity, because the probability value $Obs * R$ -

squared of the White Test is greater than the level of significance (\pm) of five percent that is equal to 0.262745.

Table 6.
Test of Basic Assumptions - Heteroscedasticity
Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.272418	Probability	0.281641
Obs*R-squared	2.673140	Probability	0.262745

Hypothesis Testing

Table 7 shows regression results from the influence of tax incentives and non-tax

incentives towards discretionary accrual in the sample firms.

Table 7.
Regression Results

Variable	Coefficient	Prob.
Intercept	-0.533758	0.0079*
YD08*TAXPLAN	-2.189741	0.0224**
YD09*TAXPLAN	-5.586781	0.0051*
FD*TAXPLAN	3.512016	0.1170
NDTL	0.469926	0.0316**

FD*NDTL	-0.799433	0.0226**
EPRESS	-0.796571	0.0104**
DEBT	0.022429	0.4313
ERANK	0.352872	0.1731
SIZE	0.031239	0.1648
STOCK	0.029802	0.3441
FD*EPRESS	1.139774	0.0038*
FD*DEBT	-0.193479	0.1083
FD*ERANK	-0.184732	0.3196
FD*SIZE	0.014068	0.0538
FD*STOCK	-0.142618	0.1770
R-squared	0.110038	
Adjusted R-Squared	0.064132	
F-Statistic	2.522333	
Prob(F-Statistic)	0.001537	

* Significant at $\alpha = 1\%$

** Significant at $\alpha = 5\%$

Variable YD08*TAXPLAN and YD09*TAXPLAN affect negatively and significantly to the discretionary accruals. This occurs because tax planning is the main variables that influence the discretionary accruals. The coefficient of tax planning (TAXPLAN) is negative which means that companies tend to use negative discretionary accrual for tax benefit. Tax planning significant effect on discretionary accrual in the two years of 2008 and 2009 are different with previous findings in which companies use negative discretionary accrual in the year of corporate tax rate reduction alone.

It is expected that the reason is reduction in corporate tax rate was done in stages in 2008 and 2009. A short span of time between the ratification and the implementation of the new Income Tax Regulation makes the companies did not prepare well-developed strategies in response to reduction in tax rates in order to gain tax advantages. In addition, the reduced tax rate in fiscal year of 2010 is greater (from 28 percent to 25 percent)

compared to fiscal year of 2009 (from 30 percent to 28 percent). This can be an incentive for managers to obtain greater tax savings in 2010.

Variable FD * TAXPLAN has positive but not significant correlation to the discretionary accrual. It suggests that tax planning done by the loss firms has no effect on corporate earnings management practices.

T-test value of variable NDTL shows significant probability value. This occurs because the net deferred tax liabilities (NDTL) is the main variable other than tax planning in testing earnings management practices by the companies. It can be concluded that the total net deferred tax liabilities (NDTL) can detect a significant probability of earnings management done by the companies. The coefficient of net deferred tax liabilities (NDTL) is positive which means the greater the company's net deferred tax liabilities, the greater its value of discretionary accruals.

FD*NDTL variables has negative and

significant impact on discretionary accruals. This shows that net deferred tax liabilities in loss firms has effect on earnings management practices by the companies.

T-test value of variable EPRESS shows a significant probability value. It indicates that companies tend to do "big bath" if the profits had exceeded the target set by the companies. Negative coefficient is in accordance with previous findings in which the companies would be attracted to use the negative accrual to reduce revenue (income) for income smoothing if corporate profits in the current year have exceeded the target. Variable FD* PRESS has positive and significant impact on discretionary accruals. This suggests that earnings pressure made by loss firms has an effect on earnings management practices by the companies.

T-test value of DEBT variable shows insignificant probability value. It means that the level of corporate debt has no significant effect on earnings management practices by the companies in order to gain tax advantages. While the variable FD*DEBT has a negative and not significant to the discretionary accrual. This shows that the level of debt owned by companies that suffered losses does not significantly affect earnings management practices conducted by the companies.

T-test value of ERANK variable shows insignificant probability value. Its interpretation is that the level of company's ROE has no significant effect on earnings management practices by the companies. Whereas, the variable FD*ERANK has negative and not significant to the discretionary accrual which suggests that the ROE of companies that suffered losses (loss

firm) has no effect on earnings management practices by the companies.

T-test value of SIZE variable indicates the probability value is not significant. It implies that the size of the company that proxy with the logarithm of total corporate assets has no significant effect on earnings management practices by the company. Meanwhile, the variable FD*SIZE has positive but insignificant effect to the discretionary accrual. This suggests that the size of loss firms has no effect on earnings management practices by the companies.

STOCK variable has a positive but not significant effect to the discretionary accrual, which indicates that the number of paid-up issued shares traded in IDX has no significant effect on earnings management practices by the companies. FD*STOCK influential variable are negative and not significant effect to the value of discretionary accruals. It applies to profit firms as well as loss firms. Although according to Regulation No.36 of 2008 regarding income tax that income tax rates for companies that have gone public and at least 40% of shares traded on the Stock Exchange paid in Indonesia (BEI) was five percent lower than the rate of 28 percent (effective 1 Jan 2009) which will benefit companies that went public and at least 40 percent of the paid-up shares traded on the Stock Exchange, but this study conclude that earnings management by companies are not affected by this rule.

We also conducted comparative model to determine whether using the FD variables (profit and loss dummy firms) where 1 to loss firms and 0 for profit firms will yield the same equation with a model that uses two types of regression that is model for profit firms and loss firms.

Table 8.
Comparison of Model Research

Variable	Using FD		Not Using FD	
	Profit	Loss	Profit	Loss
Intercept	-0.5337		-0.6602	-0.1570
TAXPLAN	-7.7765*	-4.2645	-5.2300*	0.0342
NDTL	0.4699*	-0.3295*	0.3711	-0.2837
EPRESS	-0.7965*	0.3432*	-0.7904*	0.3757
DEBT	0.0224	-0.1711	0.0105	-0.1708*
ERANK	0.3528	0.1681	0.3062	0.1667
SIZE	0.0312	0.0453	0.0418	0.0137
STOCK	0.0298	-0.1128	0.0314	-0.1077

* Significant at $\alpha = 5\%$

Table 8 above shows that the coefficient of variables from both the research model has a value that is not much different. Coefficients, both positive and negative, for each variable showed the same thing. This means that the model using FD variable (profit and loss dummy firms), where 1 for loss firms and 0 for profit firms, is more effective when compared to using two models profit firms model and loss model firms because the measurement will produce a not much different value.

5. Conclusions

The study find out that companies manage earnings in response to the decrease in corporate tax rates in Indonesia. Profit firms are not the only one who manipulate their earnings to minimize tax payments but the loss firms that are also conduct earnings management in response to the corporate tax rates reduction in Indonesia. However, profit firms conduct greater earnings management practices than the loss firms. It is indicated by the average level of profit firm's discretionary accruals which is more negative (lower) when compared with discretionary accruals of loss firms. The reason is the companies that suffered losses can be exempted from

payment of taxes in accordance with tax regulations in Indonesia, which states that loss firms is allowed to compensate the losses suffered in the period of maximum five years.

It is also found out that earnings management performed by profit firms is influenced by tax incentives, which are tax planning net deferred tax liabilities and non-tax incentives, which is earnings pressure. Meanwhile, earnings management of loss firms is affected by the net deferred tax liabilities as the tax incentive factor and earnings pressure as the non-tax incentives factor. In addition, the earnings management made by sample companies, both profit and loss firm, is not affected by the percentage of paid-up issued shares traded on the Stock Exchange. This shows that regardless of the percentage of paid-up issued shares traded on the Stock Exchange, the companies earnings management would not affected.

This study has several limitations. The first limitation is this study's observation periods of earnings management is relatively short; one year before and after the enactment of new tax laws (in 2008 and in 2009 alone). Subsequent studies should use

two-year observation period before and after the enactment of changes in tax laws and supported by a decline in corporate tax rates again in 2009 (effective as of January 1, 2010) to 25 percent. It should be further investigated whether the companies will perform earnings management after a decrease in tax rate to 25 percent. The next limitation is that the factors examined did not include the financial industry, especially banks. It is due to the difficulty to obtain the components of regression to obtain the value of discretionary accruals for firms in the financial industry, especially banks. Development of future research should include the financial industry into the study samples. The third limitation is the trade off between tax advantages gained from the company's corporate income tax rate reduction with the reaction of capital markets of decline in company's profits.

The fall in (net) income indicates that firms in poor condition so that interested parties will be more careful in making decisions. Suggestions for future research is that it should pay more attention to the trade off between the benefits caused by the reduction in corporate tax rates and a target profit expected by shareholders because the shareholders will be careful to invest their money back if they see the growth of the company is shrinking. It must be taken into consideration that the companies will lose (net) income to get benefit on corporate income tax rate reduction.

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Appendix

Appendix 1. Beginning Regression - All Firms

Dependent Variable: DA

Method: Least Squares

Date: 12/11/10 Time: 22:09

Sample: 1322

Included observations: 322

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.533758	0.377863	-1.412569	0.1588
YD08 * TAXPLAN	-2.189741	2.885070	-2.025899	0.0448
YD09 * TAXPLAN	-5.586781	2.164726	-2.580826	0.0103
FD * TAXPLAN	3.512016	2.945154	1.192473	0.2340
NDTL	0.469926	0.982107	0.478487	0.0632
FD * NDTL	-0.799433	1.061017	-2.050346	0.0451
EPRESS	-0.796571	0.342607	-2.325031	0.0207
DEBT	0.022429	0.129512	0.173181	0.8626
ERANK	0.352872	0.374000	0.943508	0.3462
SIZE	0.031239	0.031987	0.976627	0.3295
STOCK	0.029802	0.074226	0.401501	0.6883

FD * EPRESS	1.139774	0.423157	2.693499	0.0075
FD * DEBT	-0.193479	0.156304	-1.237833	0.2167
FD * ERANK	-0.184732	0.393788	-0.469117	0.6393
FD * SIZE	0.014068	0.008717	1.613967	0.1076
FD * STOCK	-0.142618	0.153645	-0.928227	0.3540
R-squared	0.110038	Mean dependent var		-0.137712
Adjusted R-squared	0.066413	SD dependent var		0.486943
SE of regression	0.470495	Akaike info criterion		1.378351
Sum squared resid	67.73798	Schwarz criterion		1.565907
Log likelihood	-205.9146	F-statistic		2.522333
Durbin-Watson stat	1.880145	Prob (F-statistic)		0.001537

Appendix 2. Beginning Regression - Profit Firms

Dependent Variable: DA

Method: Least Squares

Date: 12/11/10 Time: 21:49

Sample: 1250

Included observations: 250

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.660180	0.449744	-1.467902	0.1434
YD08 * TAXPLAN	1.191537	4.710599	0.252948	0.8005
YD09 * TAXPLAN	-6.421548	2.274798	-2.822909	0.0052
NDTL	0.371115	0.982409	0.377760	0.7059
EPRESS	-0.790422	0.338386	-2.335858	0.0203
DEBT	0.010490	0.128516	0.081625	0.9350
ERANK	0.306228	0.373016	0.820952	0.4125
SIZE	0.041781	0.038006	1.099316	0.2727
STOCK	0.031383	0.073324	0.427996	0.6690
R-squared	0.056084	Mean dependent var		-0.154922
Adjusted R-squared	0.024751	SD dependent var		0.470491
SE of regression	0.464632	Akaike info criterion		1.340195
Sum squared resid	52.02784	Schwarz criterion		1.466968
Log likelihood	-158.5244	F-statistic		1.789923
Durbin-Watson stat	1.845570	Prob (F-statistic)		0.079657

Appendix 3. Beginning Regression - Loss Firms

Dependent Variable: DA

Method: Least Squares

Date: 12/11/10 Time: 21:52

Sample: 1 72

Included observations: 72

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.157000	0.718925	-0.218382	0.8278
YD08 * TAXPLAN	1.074248	1.865427	0.575872	0.5668
YD09 * TAXPLAN	-1.040061	2.650615	-0.392385	0.6961
NDTL	-0.283691	0.468144	-0.605991	0.5467
EPRESS	0.375738	0.263434	1.426310	0.1587
DEBT	-0.170832	0.091834	-1.860231	0.0675
ERANK	0.166675	0.135167	1.233103	0.2221
SIZE	0.013673	0.060946	0.224344	0.8232
STOCK	-0.107661	0.141507	-0.760816	0.4496
R-squared	0.253539	Mean dependent var		-0.077954
Adjusted R-squared	0.158750	SD dependent var		0.539471
SE of regression	0.494801	Akaike info criterion		1.547147
Sum squared resid	15.42417	Schwarz criterion		1.831730
Log likelihood	-46.69728	F-statistic		2.674775
Durbin-Watson stat	1.805454	Prob (F-statistic)		0.013497

Appendix 4. Multicollinearity test

	DA	TAXPLAN	NDTL	EPRESS	DEBT	ERANK	SIZE	STOCK
DA	1.000000	-0.115372	-0.135197	0.060892	-0.163515	0.097322	0.008228	-0.011396
TAXPLAN	-0.115372	1.000000	0.007990	-0.108426	-0.064376	-0.477377	0.198011	0.011315
NDTL	-0.135197	0.007990	1.000000	-0.102711	0.648349	0.246402	0.217062	0.092771
EPRESS	0.060892	-0.108426	-0.102711	1.000000	-0.183580	-0.060841	-0.054770	-0.120708
DEBT	-0.163515	-0.064376	0.648349	-0.183580	1.000000	0.183241	0.163682	0.097008
ERANK	0.097322	-0.477377	0.246402	-0.060841	0.183241	1.000000	-0.119919	0.003614
SIZE	0.008228	0.198011	0.217062	-0.054770	0.163682	-0.119919	1.000000	0.083438
STOCK	-0.011396	0.011315	0.092771	-0.120708	0.097008	0.003614	0.083438	1.000000

Appendix 5. DA Average Difference Test on Independent Variables

Dependent Variable: SDDA

Method: Least Squares

Date: 12/14/10 Time: 16:05

Sample: 1322

Included observations: 322

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.257682	0.037704	-6.834260	0.0000
SDTAXPLAN	5.924988	4.262457	1.390040	0.1655
SDNDTL	-0.793465	0.368900	-2.150893	0.0322
SDEPRESS	0.100678	0.249429	0.403634	0.6868
SDDEBT	-0.072978	0.062012	-1.176834	0.2402
SDERANK	0.214188	0.080075	2.674845	0.0079
SDSIZE	0.005426	0.003673	1.477302	0.1406
SDSTOCK	0.007124	0.055457	0.128453	0.8979
R-squared	0.072808	Mean dependent var		-0.213720
Adjusted R-squared	0.052138	SD dependent var		0.412262
SE of regression	0.401371	Akaike info criterion		1.036667
Sum squared resid	50.58487	Schwarz criterion		1.130445
Log likelihood	-158.9035	F-statistic		3.522436
Durbin-Watson stat	0.188623	Prob (F-statistic)		0.001175
