

Effect of Tax Planning and Temporary Difference to Earnings Management

Cindy Lystia Tartono^{a,*}, Athalia Ariati Hidayat^b and Luciana Haryono^c

^a*Accounting Program, Universitas Prasetiya Mulya, cindy.tartono@student.pmsbe.ac.id, Indonesia*

^a*Accounting Program, Universitas Prasetiya Mulya, athalia.ariati@pms.ac.id, Indonesia*

^a*Accounting Program, Universitas Prasetiya Mulya, luciana.haryono@pms.ac.id, Indonesia*

Abstract: This study aims to analyze tax planning (tax planning is estimated using effective tax rate) motivations that push management (agent) to manage earnings and the ability of temporary difference accounts (measured by deferred tax assets, liabilities and expenses) to detect earnings management. Earnings management is estimated using the modified Jones model. This study uses three independent variables to measure temporary difference, analyzes the effect of the independent variables towards the direction of earnings management and analyzes more than one industry so the results Samples used in this study are 377 non-financial public firms that are listed in the Indonesia Stock Exchange from 2015 until 2019, with a total of 1,832 observations. The data panel is processed using multiple linear regression using fixed effect model. The results of the study found only deferred tax liabilities has significant impact to earnings management and is able to detect earnings management upwards. Tax planning only effects absolute earnings management without specific direction. Deferred tax assets do not have a significant impact to detect earnings management downwards and deferred tax expense has no significant impact to earnings management but can potentially detect earnings management upwards in extreme cases.

Keywords: Deferred Tax Asset, Deferred Tax Expense, Deferred Tax Liability, Modified Jones Model, Tax Planning

* Corresponding Author email: cindy.tartono@student.pmsbe.ac.id

Introduction

A company's financial statement represents the financial performance of the firm, which means it has a lot of utility for both internal (corporate and operational decision-making) and external uses (investor decision-making). The financial statement is also used by the state for taxation purposes. A company's goal is to maximize its wellbeing, while the state's goal is to maximize taxation income. So, a company will take steps to minimize their taxes through legal means, this process is called tax planning (Dewi, Nuraina and Amah, 2017).

Knowing the many utilities of financial statement, firms can manage their financial statements to achieve multiple results depending on their motive, one way they can achieve that is by doing earnings management. Previously local and international researchers have produced literature analyzing the motives behind earnings management practices.

Jensen and Meckling (1976) attempted to illustrate the motive of agents (management) making decisions to maximize their personal benefits. Principal is the owner of the firm that delegates responsibilities to agents to run the firm. This theory explains the conflict of interest between the two parties, where the principal prioritizes the long-term wellbeing of the firm while the agent prioritizes personal benefits. The agent can maximize firm performance to earn higher bonus.

Watts and Zimmerman derived positive accounting theory in 1978 based on Jensen and Meckling's agency theory. This theory tries to predict accounting policies taken by agent in different scenarios. The agent will maximize profits to get bonus or when they have to fulfill agreements such as debt covenant. While the agent will minimize profits to minimize political cost, which includes taxes.

In accounting and taxation rules, there are grey area which allows agent to have subjective freedom such as using judgement which has no other basis other than the agents' opinion. PSAK 46 has a paragraph that states the agent has freedom to determine the deferred tax asset valuation and allowance for tax expense/benefit. Deferred tax accounts show up because of the differences between accounting and taxation rules, these differences are called temporary difference. Larger temporary difference can indicate more liberal accounting policies (Hawkins, 1998 within Yulianti, 2005).

Company tax subjects are required to make fiscal financial income statement. Making it requires fiscal

correction from the income statement formed using accounting rules as the fiscal policies has different requirements of revenue and expense recognition. The gains/loss in fiscal income statement is the basis of taxing these firms. The differences between fiscal and accounting gains/loss are reported in three temporary differences accounts which are: deferred tax asset, deferred tax liability, deferred tax expense.

Deferred tax asset shows up when accounting gains is lower than fiscal gains, so the current tax expense is higher than accounting tax expense. The rule requires companies to evaluate the amount of this account at the end of every period. Deferred tax liability shows up when accounting gains is higher than fiscal gains, making the current tax expense lower than accounting tax expense. Deferred tax expense shows up when accounting gains is higher than fiscal gains, making the current tax expense lower than accounting tax expense. PSAK 46 also gives freedom to the company to defer their taxes (Yulianti, 2005). The different characteristics in each temporary difference accounts can potentially be used to indicate the direction of earnings management that was performed.

The different characteristics of each temporary differences accounts has the potential to indicate the direction in which earnings management is implemented. Because of their characteristics, deferred tax assets have the potential to indicate downwards earnings management while deferred tax liability has the potential to indicate upwards earnings management. Though it is possible that these temporary differences arise purely due to the different policies used for accounting and for fiscal purposes.

As explained by the agency theory, the company is motivated to maximize its profits, one of the ways to achieve that is by minimizing tax expenses. The legal way to minimize taxes is called tax planning. This is when the company uses the rules and facilities that are available (such as loss compensations and free zones) to minimize the taxes they need to pay. With those facilities and rules, a company can manipulate their financial statement to achieve minimization in taxes they need to pay.

Previous researchers found that tax planning has a significant effect to earnings management as one of the ways to lessen taxes using the facilities and rules is by earnings management (Baraja, Basri, Sismi, 2017; Dewi et al, 2017; Hapsari and Manzilah, 2016; Lubis and Suryani, 2018; Santana and Wirakusuma, 2016). While other researchers found that tax

planning has no significant effect to earnings management due to companies evading tax using illegal means, which are harder to detect (Aditama and Purwaningsih, 2014; Ifada and Wulandari, 2015).

Previous research about the effect of temporary difference towards earnings management also found differing results. Some found temporary difference accounts have significant effect to temporary difference and can be used to detect earnings management done by a firm due to some subjectivity and deferring taxes (Astutik and Mildawati, 2016; Baraja et al, 2019; Fajri and Mayangsari, 2012; Sutadipraja, Ningsih and Mardianac, 2020; Yulianti, 2005). Lu (2002) found deferred tax assets can be used by firms to perform big bath earnings management. Philips, Pincus and Rego (2003) found earnings management can be detected using deferred tax expense when firms are avoiding loss. While other research found temporary difference, accounts are not able to do so as there are risk to reporting high temporary difference such as users of the financial report questioning the credibility of the report (Sibarani, Hidayat and Surtikanti, 2015; Suranggane, 2007; Utami and Malik, 2015).

This research aims to understand this issue in a comprehensive way due to these reasons: This research aims to see the way earnings management is done (manage earnings up or down). This research uses three variables to represent temporary differences, most listed firms release consolidated income statement, so they can report deferred tax asset and liability at the same time. This research analyzes more than one industry (excluding financial industry).

Literature Review and Hypothesis Development

Agency Theory and Signaling Theory

Agency theory was formed by Jensen and Meckling in 1976 with the aim to explain the relationship between principal (owner) and agents (management). Principal appoints agents to run the business, therefore the principal delegates responsibilities of decision making to the agents. The agency problem shows up because the agents are not guaranteed to make decisions which will be most beneficial to the principal, instead they will make decisions that will benefit the agent personally.

The agent has to make financial statement to report on the financial condition of the company. There are many uses of the financial report especially for public

listed companies. The agent is the party that runs the business and makes the report, therefore there is information asymmetry as the agent knows more about the internal condition of the firm than external users (Morris, 1987). This condition allows the agents to form financial reports that will be the most beneficial for them.

Positive Accounting Theory

Positive accounting theory was formed by Watts and Zimmerman in 1978 and was derived from agency theory, this theory tries to predict accounting policies chosen in three different scenarios. These are the scenarios:

1. Bonus plan hypothesis: agent is motivated to increase performance and will choose accounting policies that maximize gains to be able to maximize their bonus.
2. Debt covenant hypothesis: companies with high leverage are more likely to maximize performance motivated by the debt covenant.
3. Political cost hypothesis: profitable companies are more likely to choose accounting policies that minimize profit so they can minimize political cost such as taxes.

Deferred Taxes (Asset, Liabilities and Expenses) and Indonesia's Fiscal Policy

Due to the differences between accounting and taxation rules, the commercial and fiscal gains/loss will be different and results in different amounts of taxes from the different books. Fiscal policies have more specific guidelines about the types of expenses and revenues that can be recognized in the fiscal income statement, this list is specified in "Undang-undang Pajak Penghasilan" Pasal 6 and 9. The difference will be reported in the commercial financial statement in the form of deferred tax assets, liabilities and expenses as illustrated in the figure 1.

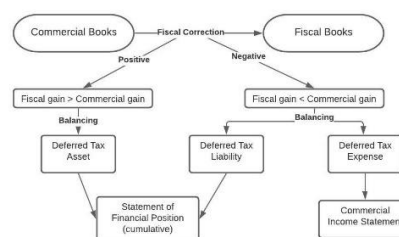


Fig. 1. Temporary Differences

A company is only able to report either deferred tax asset or deferred tax liability, but about 80 percent of companies listed in the Indonesia Stock Exchange are consolidated companies, therefore they can report both accounts at the same time. Deferred tax expense is different compared to the other two accounts as the other accounts are cumulative accounts while deferred tax expense shows up from transactions in the current period. When deferred tax expense is negative, it means the company reports deferred tax benefits. Deferred tax benefit shows up when fiscal gain is higher than commercial gain, or when there is addition to deferred tax asset account or decrease in deferred tax liability account (depends on which cumulative account is already reported).

Tax Planning

Tax planning is when a company minimizes their taxes legally by using the facilities and rules available to them. A company will review all the rules and facilities available to them and choose the ones that will result in the most tax cuts (Astutik and Mildawati, 2016). Slemrod (2004) states that it is difficult to determine how much of the tax planning done by a company that is still within legal means or ones that are already classified as tax avoidance. Therefore, this research will not focus on the different types of tax planning and ways of identifying them as it can be challenging to do so with such a large observation.

Earnings Management

Earnings management is when a firm uses the grey area in accounting rules to alter the content of financial report so it better reflects what the company wants to portray, rather than the objective truth. Opportunistic earnings management is the type of earnings management that has the potential to mislead stakeholders about the financial performance of the firm (Holthausen and Leftwich, 1983 within Beneish, 2001). While efficient earnings management is when earnings management is performed to maximize the information portrayed by the financial statement for the stakeholder's use (Siregar and Utama, 2008). There are two forms of earnings management which are accrual and real earnings management. Real earnings management are more difficult to detect and is also costlier (Cohen, Dey and Lys, 2008). Accrual earnings management is when management chooses

acceptable accounting policies to manage earnings (Braam et al, 2015).

An agent can form financial report with a few different motivations. Here are the four types according to Scott (2003, within Mahpudin, 2017).

- a. Big bath: when there is pressure such as change in board members. New board members will tend to manage earnings down in the beginning of their term so it will seem like there is an increase in performance during their term.
- b. Income minimization: minimizing profit due to political cost such as taxes. Usually done by high performing companies. This form of earnings management is also done by agent to form cookie jar reserve (withholding current profit to be reported later when company performance goes down).
- c. Income maximization: maximizing profit motivated by the agent wanting to get higher bonus from better performance. Also, when companies have debt covenant.
- d. Timing revenue and expense recognition: both can be used to maximize or minimize earnings. Minimizing earnings by delaying revenues and speeding up expense recognition and vice versa.

Hypothesis Development

The third scenario in positive accounting theory explains that firms are likely to pick accounting policies that minimize political cost (such as tax expense). With that motivation, the firm will perform tax planning using the available rules and facilities that will result in the lowest taxes they need to pay. One of the ways to achieve this is through earnings management. This decision will not only benefit the agent, but also benefit the principal (shareholders) as high taxes lessen the profits that are going to be distributed to shareholders.

Previous researchers, Dewi et al (2017) found that firms will perform tax planning to lower taxes within legal bounds, earnings management allow them to report profits depending on their goal. Santana and Wirakusuma (2016) and Lubis and Suryani (2018) found significant positive impact as when tax planning is done to lessen tax within legal bounds, the chance of the firm performing earnings management to achieve that goal. Baraja et al (2017) found when a firm performs higher tax planning, the firm is also more likely to perform earnings management.

While some researcher found differing results. Aditama and Purwaningsih (2014) found insignificant relationship between tax planning and earnings management, this is due to the method of estimating tax planning being not effective to measure the variable. They also stated it is possible that the tax planning done by the companies they observed were done through illegal means, which are harder to detect. Based on the theories of tax planning motivation behind earnings management and previous research done on the topic, this is the hypothesis drawn:

H1. Tax planning significantly impacts downwards earnings management

Deferred tax assets appear when temporary difference arise from positive fiscal correction, making the commercial gain lower than fiscal gain which results in higher current taxes compared to commercial taxes. PSAK 46 requires agent to value amount reported in deferred tax assets at the end of the period which are more likely than not going to be realized in the future in the valuation allowance. Due to the subjectivity required in the rules, the agent can use their subjective judgement which allows them to make material adjustments to the reported profit (Miller and Skinner, 1998 within Suranggane, 2007).

Previous research found deferred tax asset valuation can detect earnings management. Lu (2000) found deferred tax asset valuation can be used by firms to perform big bath earnings management, so the firm can report better performance in the future. Burgstahler, Elliot and Hanlon (2002) found loss can be avoided by reducing deferred tax asset valuation or reducing the amount reported when there is an increase in the account. Baraja et al (2017) found deferred tax asset can be used to indicate earnings management.

While Suranggane's (2007) research found PSAK 46 was a relatively new rule during the time of observation so firms are not able to maximize the use out of the regulation. Anasta (2015) and Jiwanggono (2014) found high deferred tax assets makes the current tax expenses higher, a risk companies are not willing to take to manipulate their earnings with. Based on the theories of motivation behind earnings management and previous research done on the topic, this is the hypothesis drawn:

H2. Deferred tax asset significantly impacts downwards earnings management

Deferred tax liability appears when fiscal correction results in higher commercial gain than fiscal gain, which results in lower current taxes

compared to commercial taxes. The agent can manage earnings up to maximize firm performance so they can earn higher bonus for their performance as explained in the first scenario of positive accounting theory. The higher percentage of deferred tax liability compared to current tax shows the chosen accounting policies that are more liberal (Yulianti, 2004 within Jiwanggono, 2014).

Previous research by Noor, Matsuki and Aziz (2007) found there is an increasing trend in deferred tax liability reported from 1990 – 2004, this shows firms are taking more aggressive tax planning strategies by reporting higher commercial gains for shareholders and investors while reporting lower fiscal gains for taxation purposes. Jiwanggono (2014) found firms are who more likely to report high commercial gains (which results in the increase of deferred tax liability account) are motivated to avoid loss or maximize profit.

Meanwhile Sutadipraja et al (2019) found deferred tax liability account is not able to detect earning management as taxation only recognized current taxes, not deferred tax expense. Their research also found the majority of firms experience positive fiscal correction, making their fiscal gain higher than their commercial gain which results in deferred tax assets. Based on the theories of motivation behind earnings management and previous research done on the topic, this is the hypothesis drawn:

H3. Deferred tax liability significantly impacts upwards earnings management

Deferred tax expense appears when current tax expense is smaller than commercial tax expense, when the current tax expense is higher than commercial tax expense, it is called deferred tax benefit. Higher percentage of deferred tax expense compared to total tax expense of the firm indicates a more liberal accounting standard (Hawkins, 1998 within Yulianti, 2005). When a firm defers taxes, it can be considered that the firm delays their tax payment, the firm may have done this by reducing the fiscal gains reported while maximizing commercial gains reported. Therefore, deferred tax expense can affect earnings management through tax saving motivations (Lubis and Suryani, 2018).

Previous research by Phillips, Pincus and Rego (2003) found deferred tax expense can detect earnings management when firms are motivated to avoid loss or earnings decline. Sutadipraja et al (2019) found deferred tax expense can show tax savings motivation which pushes firms to perform earnings management. Yulianti (2005) and Negara et

al (2017) found deferred tax expense can detect the probability of firms performing earnings management, only when firms performing earnings management to avoid loss.

Meanwhile Febriyanti and Hanna's (2014) research found that deferred tax expense is not able to detect earnings management as listed firms are more aware of the importance of complying to the rules and OJK have made the possibility of firms performing earnings management smaller. Timuriana and Muhamad (2015) found when firms perform earnings management using the deferred tax expense, the manipulation will be translated in the fiscal report as the fiscal report has stricter rules about revenue and expense recognition. Based on the theories of motivation behind earnings management and previous research done on the topic, this is the hypothesis drawn:

H4. Deferred tax expense significantly impacts upwards earnings management

Here is the conceptual framework that can be seen in figure 2.

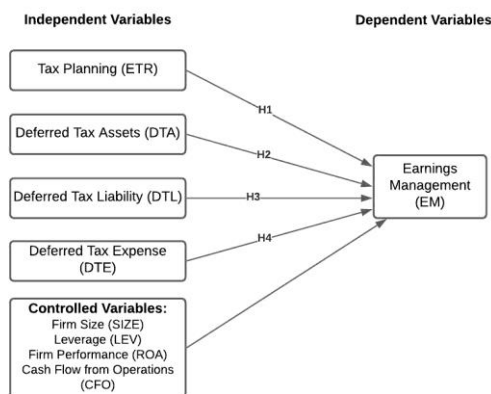


Fig. 2. Conceptual Framework

Research Method

Population and Sample

Data used for this research are secondary data of listed firms in Indonesia Stock Exchange that are available in Capital IQ. The firms are classified using Jakarta Stock Industrial Classification (JASICA) as of 2019. Here are the sample criteria for this research:

1. Listed companies in Indonesia Stock Exchange
2. Non-financial firms

3. Firms with complete data throughout 2015 – 2019
4. Did not perform IPO or delisting throughout 2015 – 2019

Table 1.
Sample Selection

Sample Selection	Number of firms	Number of observations
Non-financial firms listed in Indonesia Stock Exchange	541	2,705
Firms listed between 2015 – 2019	(162)	(810)
Firms with incomplete data	(9)	(45)
Observation not reporting DTA in previous period		(53)
Total	377	1,832

The amount of listed non-financial firms in Indonesia Stock Exchange is 541 firms. Among those, 171 firms are excluded from the sample as they started listing between 2015 – 2019 and some firms do not have complete data. Fifty-three observations are excluded as they did not report deferred tax asset in the previous period, which means it is not possible to calculate the deferred tax asset variable. There is a total of 377 firms fulfilling the sample criteria and 1,832 observations in total.

Operationalization of Variables

Modified Jones Model is calculated using these steps according to Dechow et al (1995):

a. Calculating total accruals:
 $TACC_{it} = NI_{it} - CFO_{it}$ Eq (1)

Annotation:

TACC_{it} : total accruals of firm during the year
 NI_{it} : net income before extraordinary items during year t
 CFO_{it} : firm's cash flow from operation during year t

b. Discretionary accrual regression to estimate discretionary accruals from the error:

$$TACC_{it}/TA_{t-1} = \alpha (1/TA_{t-1}) + \beta_1[(\Delta SALE_{it} - \Delta AR_{it})/TA_{t-1}] + \beta_2[PPE_{it}/TA_{t-1}] + E_{it}$$
 Eq (2)

Annotation:

TACC_{it} : total accruals of firm during year t
 TA_{t-1} : firm's total asset during year t-1
 ΔSALE : difference of firm's revenue during year t with year t-1
 ΔAR : difference of firm's receivables during year t with year t-1

PPE_{it} : firm's gross plant property equipment during year t

E : error

Table 2
Operationalization of Variables

	Variable	Operationalization	Ref.
Dependent Variables			
EM	Earnings Management	Discretionary accruals according to modified jones model	Dechow et al, 1995
Independent Variables			
ETR	Tax Planning	$TR = \frac{\text{Current tax expense (it)}}{\text{Pretax income (it)}}$	Blouin, 2014; Yorke et al, 2016
DTA	Deferred Tax Asset	$\frac{\Delta \text{Deferred Tax Asset}}{\text{Deferred Tax Asset}(t-1)}$	Chao et al, 2004
DTL	Deferred Tax Liability	$\frac{\text{Deferred Tax Liability (it)}}{\text{Total Asset (it)}}$	Sutadiprajaja et al, 2019
DTE	Deferred Tax Expense	$\frac{\text{Deferred Tax Expense (it)}}{\text{Total Asset (it)}}$	Febriyanti, 2014
Independent Controlled Variables			
SIZE	Firm Size	LnMarketCap_{it}	Yulianti, 2005
LEV	Leverage	$\frac{\text{Total Liability (it)}}{\text{Total Asset (it)}}$	Herawati and Ekawati, 2016
ROA	Firm Performance	$\frac{\text{Net income (it)}}{\text{Average total asset}}$	Febriyanti and Hanna, 2014
CFO	Cash flow from operation	$\frac{\text{Cash flow from operations (it)}}{\text{Total assets (it)}}$	Christiani and Nugrahanti, 2014

The following model is used in this study:

$$EM_{it} = \alpha + \beta_1 TP_{it} + \beta_2 DTA_{it} + \beta_3 DTL_{it} + \beta_4 DTE_{it} + \beta_5 SIZE_{it} + \beta_6 LEV_{it} + \beta_7 ROA_{it} + \beta_8 CFO_{it} + E_{it} \quad \text{Eq (3)}$$

This study uses panel data. The data in this study will be used to test the effect of tax planning towards earnings management and the ability of temporary difference accounts (using deferred tax asset, liability and expense) to detect earnings management as well as some controlled variables.

Results and Discussion

Table 3 shows the general statistics of all variables. All variables have 1,832 observations. The panel data is unbalanced.

Dependent variable discretionary accruals (EM) estimates earnings management performed, negative

coefficient shows firms managed earnings down while positive coefficient shows firms managed earnings up. Highest value in the sample is 13.9938 which is owned by PT Nusa Konstruksi Enjiniring Tbk in 2017. While the lowest value is -3.48527 which is owned by PT Bekasi Asri Pemula in 2015.

Tax planning (ETR) estimates how much tax planning is performed by firms. Low value shows more tax planning as it shows firms have minimized taxes more efficiently. The highest value in the sample is 21.3824 which is owned by PT Austindo Nusantara Jaya in 201. While the lowest value is -28.4755 which is owned by PT Malindo Feedmill in 2017. Deferred tax asset (DTA) shows the growth in deferred tax asset account. Positive coefficient shows increase in the amount of deferred tax asset, while negative coefficient shows decrease in amount reported. The highest value in the sample is 0.999268 which is owned by PT Sinar Mas Agro Resources and Technology in 2016. While the lowest value is -221.929 which is owned by PT Buana Atha Anugerah.

The highest value for deferred tax liability variable scaled by total assets (DTL) is 0.130333 which is owned by PT Tiga Pilar Sejahtera Food in 2019. While the lowest value is 0 which is reported by 963 observations, making 52.57 percent of the observation being 0 (does not report deferred tax liability in the period).

The highest value for deferred tax expense scaled by total assets (DTE) is 0.241829 which is owned by PT Trikonsel Oke in 2017. While the lowest value is -0.11038 which is owned by PT Modern Internasional. Negative value shows that firms report deferred tax benefit, 635 observations have negative value (33.68 percent of the observation).

Table 3
Descriptive Statistics of Variables

	Observation	Mean	Std dev	Min.	Max.
EM	1,832	-0.0038	0.5574	-3.4853	13.9938
ETR	1,832	0.1581	1.0981	-28.476	21.3824
DTA	1,832	-0.4021	6.4315	-221.93	0,9993
DTL	1,832	0.0086	0.0193	0	0,1303
DTE	1,832	0.0002	0.0131	-0.1104	0,2418
SIZE	1,832	14.257	1.9741	9.0882	20.1258
LEV	1,832	1.2051	22.868	0.0003	973.41
ROA	1,832	3.4735	5.5084	-15.918	33.09
CFO	1,832	0.0542	0.1028	-0.88	0.7727

Annotation: EM: discretionary accruals (modified jones); ETR: effective tax rate; DTA: deferred tax asset; DTL: deferred tax liability; DTE: deferred tax expense; SIZE: firm size (market capitalization); LEV: leverage; ROA: return on asset; CFO: cash flow from operations

Firm size (SIZE) has the highest value of 20.1258 which is owned by PT Hanjaya Mandala Sampoerna in 2017. While the lowest value is 9.08817 which is owned by PT Jakarta Kyoei Steel Works in 2018. Leverage (LEV) has the highest value of 973.406 which is owned by PT Bakrie Telecom in 2019 which consistently has really high leverage. While the lowest value is owned by PT Sumber Energi Andalan which consistently has the lowest leverage value nearing zero.

Firm performance (ROA) has the highest value of 33.09 percent which is owned by PT Multi Bintang Indonesia in 2016. While the lowest value is -15.9176 percent which is owned by PT Bakrie Sumatra Plantations in 2019. Cash flow from operations scaled by total assets (CFO) has the highest value of 0.7727273 which is owned by PT Alumindo Light Metal Industry in 2015. While the lowest value is -0.88 which is owned by PT Hotel Mandarine Regency in 2019.

Impact of Tax Planning on Earnings Management

The regression result shows positive insignificant correlation of tax planning (ETR) towards earnings management (EM). For ETR, a smaller value indicates the firm was able to do more tax savings (therefore performed more tax planning activities). A previous study found that it is likely that the method of estimating tax planning is not effective in estimating the variable. Aditama and Purwaningsih (2014) found that the method they used (tax retention rate) is likely to be not effective in estimating tax planning activities. Both tax retention rate and effective tax rate are not able to differentiate the types of tax planning done as these methods are aimed to estimate tax planning in general without identifying the types.

It is also challenging to find information about each firm's tax planning activities. This information can be used by tax authorities to notify firms that they are not paying enough tax, which will be disadvantageous to the firm. It is also likely that the types of tax planning that are done by the firm is out of legal bounds, therefore the firm would like to hide this information. Other than that, it is also likely that when a firm wants to perform tax planning, the manipulation in earnings will be focused on the fiscal earnings, not the commercial earnings, therefore it is not reflected in the earnings management variable in this study.

Impact of Deferred Tax Asset to Earnings Management

The regression result shows negative insignificant correlation between deferred tax asset (DTA) and earnings management (EM). Meaning deferred tax asset cannot be used to detect earnings management. This result confirms Jiwanggono's (2014) study that found there are risk associated with the deferred tax asset account. Being a cumulative account and the subjectivity element (regulated in PSAK 46 that agents are supposed to evaluate the account at the end of the period), the financial report user can question the implications of this account being so high. These reasons may be why listed companies in Indonesia do not want to use this account as a means to perform earnings management. Other than that, Suranggane (2007) found that if firms use the deferred tax asset account to manage earnings, the fiscal report will result in higher current taxes which can be harmful to the firm. This is because of the nature of deferred tax asset account which appears when commercial gain is lower than fiscal gain, making their current taxes higher than their book taxes. This may also be a reason why firms do not use deferred tax asset as a means to perform earnings management.

Table 4
Regression Result

	EM Expected Sign	Coef.	Robust Std Err	P> t
ETR	+	0.0063	0.0099	0.523
DTA	-	-0.0043	0.0052	0.405
DTL	+	1.1005*	0.2910	0.081
DTE	+	0.2265	0.7278	0.756
SIZE	+/-	0.0065	0.0061	0.324
LEV	+	-0.1293***	0.0366	0.000
ROA	+/-	-0.0007	0.0005	0.203
CFO	+/-	0.6647***	0.0632	0.000
Number of Observation	1,832			
Number of Groups	377			
Prob > F	0			
R-Square (within)	0.1216			

Annotation: *= significant at 10%, **= significant at 5%, ***= significant at 1%. EM: discretionary accruals (modified jones); ETR: effective tax rate; DTA: deferred tax asset; DTL: deferred tax liability; DTE: deferred tax expense; SIZE: firm size (market capitalization); LEV: leverage; ROA: return on asset; CFO: cash flow from operations

Impact of Deferred Tax Liability to Earnings Management

The regression result shows positive significant correlation at 10 percent significance between deferred tax liability (DTL) earnings management (EM). Meaning deferred tax liability can be used to detect earnings management. This result confirms Anasta (2015) and Jiwanggono's (2014) study that found firms are likely to report higher commercial gains than fiscal gains due to motivation of avoiding loss or to maximize profits. This motivation is also explained in the type 1 agency problem, where the agent is motivated to maximize firm performance during their term to increase their bonus.

This also confirms Noor, Matsuki and Aziz's (2007) study that found an increasing trend in reporting deferred tax liability from 1990 – 2004, this is due to firms having aggressive tax planning strategies, reporting higher gains to shareholders than for tax reasons. This finding is supported by Desai (2002) who found an increase in book-tax difference which results in firms save on tax expenses which is caused by the ease of implementing tax planning using book-tax difference.

Deferred tax liability appears when commercial gain is higher than fiscal gains, making current tax expense lower than commercial tax expense. High commercial gain also shows better firm performance, this can be used by the agent to signal investors and shareholders by managing earnings up which is reflected in the deferred tax liability account.

Impact of Deferred Tax Expense to Earnings Management

The regression result shows positive insignificant correlation between deferred tax expense (DTE) and earnings management (EM). Meaning deferred tax expense cannot be used to detect earnings management. This result confirms Fitriany, Nasir and Ilhan (2016) and Timuriana and Muhamad's (2015) study which found when firms manipulate earnings, the amount that will be reflected in deferred tax expense is small, so deferred tax expense cannot be used to detect earnings management. This is because when firm manipulates earnings in their commercial book, it will be transferred to the fiscal books. Therefore, the temporary difference reflected in deferred tax expense is not significant in being able to detect earnings management. It is also likely when firms

perform earnings management with tax saving motivations, they are doing to focus manipulation in the fiscal books, not commercial books.

This result is not consistent with Astutik and Mildawati's (2016) research that found high deferred tax expense shows tax saving motivations which pushed firms to perform earnings management. Table 5 shows the mean of DTE variable in four different quarters of EM when the latter variable is ordered from smallest to largest and divided into four parts consisting of the same observation number. The highest quarter of EM shows a mean in DTE that is particularly higher than the other quarters. Therefore, this study found that it is possible to detect earnings management using DTE in extreme cases of firms managing earning upwards.

Table 5
Comparing Mean of EM per Quarters with DTE

EM Quarter	EM Mean	DTE Mean
1	-0,2190	-0,0001
2	-0,0380	-0,0007
3	0,0156	-0,0003
4	0,1373	0,0006

Annotation: EM: discretionary accruals (modified jones); DTE: deferred tax expense

Further Analysis

A regression using absolute earnings management (EM_Abs) is performed to analyze the relationship between the independent variables and the magnitude of earnings management. This regression has a lower r-square of only 2.5 percent, while the main regression has r-square value of 12.16 percent. This shows that the independent variables in this study has more stronger effect to influence two-way earnings management.

The regression result in table 5 shows negative significant relationship between tax planning (ETR) and absolute earnings management (EM_Abs). Due to the nature of the inverted nature of ETR, the result shows that when tax planning is higher, the magnitude of earnings management is also higher. This shows that tax planning measured by effective tax rate has significant relationship with absolute earnings management. This finding is consistent with Santara and Wirakusuma (2016) and Lubis and Suryani (2018) findings as the higher tax planning activities to cut tax expenses using legal means, the chances of a firm performing earnings management becomes higher to achieve said goal.

Table 5
Regression result using Absolute Earnings Management

	EM_Abs Expected Sign	Coef.	Robust Std Err	P> t
ETR	-	-	0,0076	0,0210
		0,0176**		
DTA	+	-0,0052	0,0046	0,2620
DTL	+	0,1864	0,3547	0,5990
DTE	+	-0,2394	0,5108	0,6400
SIZE	-	0,0024	0,0053	0,6520
LEV	+	0,0933*	0,0319	0,0040
ROA	+/-	0,0006	0,0004	0,1790
CFO	+/-	-0,0741	0,0522	0,1560
Number of Observations	1.832			
Number of Groups	377			
Prob > F	0,0142			
R-Square (within)	0,0250			

Annotation: *= significant at 10%, **= significant at 5%, ***= significant at 1%. EM: discretionary accruals (modified Jones); ETR: effective tax rate; DTA: deferred tax asset; DTL: deferred tax liability; DTE: deferred tax expense; SIZE: firm size (market capitalization); LEV: leverage; ROA: return on asset; CFO: cash flow from operations

The regression results show positive insignificant relationship between deferred tax liability (DTL) and absolute earnings management (EM_Abs). Therefore, deferred tax liability is not able to detect the magnitude of earnings management. Overall, this shows that deferred tax liability is more capable of detecting earnings management upwards than the magnitude of earnings management.

Conclusion, Implications and Limitations

This study aims to analyze the impact of tax planning and temporary difference towards the direction of earnings management. The data used for this study are listed public non-financial firms in Indonesia Stock Exchange from the year 2015 up to 2019 with a total of 377 firms and 1,832 observations. The panel data is processed using multiple linear regression using fixed effect model.

Tax planning (ETR) does not have significant impact to downwards earnings management, but with further analysis this variable has a significant impact to the magnitude of earnings management (EM_Abs). Therefore, this variable is not able to detect two-way earnings management but is able to detect the magnitude of earnings management even though the method to estimate this variable has a few limitations.

Deferred tax assets (DTA) do not have a significant impact to downwards earnings management. This is due to the risk associated with high amounts of deferred tax assets such as the credibility of the financial statement being questioned and resulting in higher current tax expense.

Deferred tax liability (DTL) has a significant impact to upwards earnings management. Therefore, it can be used to detect earnings management practices that maximizes firm performance (upwards earnings management) with the motive to cut tax expense and so the agents can earn higher bonuses.

Deferred tax expense (DTE) does not have a significant impact to upwards earnings management statistically. Although, when looking at the mean of DTE with earnings management (EM), DTE has potential to detect earnings management in extreme cases.

Some limitations to the study include the method of estimating tax planning being not too effective to estimate the variable due to the method not differentiation the types of tax planning done by the firm. Other than that, it is also difficult to look for information about the methods taken by firms for their tax planning activities as this information is usually confidential as they can be used against the firm if they are made public, especially if the activities done by the firm are out of legal bounds. This study also does not take into account factors that may cause temporary difference shifting.

Based on the limitations the next study can analyze management bonus as a variable with deferred tax liability which this study has proved to be able to detect earnings management. Next studies can also analyze the impact of COVID-19 pandemic and other factors that can possibly cause temporary difference shifting.

The result of this study can be used by financial report users to judge the quality of financial report by looking at the temporary difference accounts so they can make better decisions. Specifically, by looking at the deferred tax liability account which this study found is able to detect earnings management and deferred tax expense in extreme cases.

The result of this study can also add reference to the literature world that analyzes impact of tax planning to earnings management and temporary difference with earnings management. This study found that only deferred tax liability is able to detect firms managing earnings up. Deferred tax expense is able to detect earnings management upwards in

extreme cases. Tax planning has a significant impact towards the magnitude of earnings management. Future studies can also learn from this study's limitations and be able to design better studies in the future.

Regulators can also use the result of this study to re-evaluate the existing rules so a firm's financial report can better reflect the financial condition of the firm. This study found deferred tax liability can be used to detect earnings management, rule makers can use this result to improve the rules of presentation and recognition of the accounts so the ability of detecting earnings management can be maximized by looking at the temporary difference components in financial reports.

Reference

- Aditama, F., dan Purwaningsih, A. (2016). Pengaruh perencanaan pajak terhadap manajemen laba pada perusahaan nonmanufaktur yang terdaftar di Bursa Efek Indonesia. *Jurnal MODUS* Vol.26 (1), 33-50
- Anasta, L. (2015). Analisa Pengaruh Deferred Tax Asset, Deferred Tax Liabilities, dan Tingkat Hutang Terhadap Manajemen Laba Pada Perusahaan Sub Sektor Industri Makanan dan Minuman di Indonesia. *Jurnal Tekun*, 4(02), 250-270.
- Astutik, R. E. P., dan Mildawati, T. (2016). Pengaruh perencanaan pajak dan beban pajak tangguhan terhadap manajemen laba. *Jurnal Ilmu dan Riset Akuntansi (JIRA)*, 5(3), 1-17.
- Bauman, C. C., Bauman, M. P., dan Halsey, R. F. (2001). Do firms use the deferred tax asset valuation allowance to manage earnings?. *Journal of the American Taxation Association*, 23(s-1), 27-48.
- Baraja, L. M., Basri, Y. Z., dan Sismi, V. (2019). Pengaruh Beban Pajak Tangguhan, Perencanaan Pajak dan Aktiva Pajak Tangguhan Terhadap Manajemen Laba. *Jurnal Akuntansi Trisakti*, 4(2), 191-206.
- Beneish, M. D. (2001). Earnings management: A perspective. *Managerial Finance* Vol 27 (12), 3-17. Available at SSRN 269625.
- Blouin, J. (2014). Defining and measuring tax planning aggressiveness. *National Tax Journal*, 67(4), 875.
- Braam, G., Nandy, M., Weitzel, U., & Lodh, S. (2015). Accrual-based and real earnings management and political connections. *The International Journal of Accounting*, 50(2), 111-141.
- Burgstahler, D., Elliott, W. B., dan Hanlon, M. (2002). How firms avoid losses: Evidence of use of the net deferred tax asset account. University of Washington Working Paper.
- Chao, C. L., Kelsey, R. L., Horng, S. M., dan Chiu, C. Y. (2004). Evidence of earnings management from the measurement of the deferred tax allowance account. *The Engineering Economist*, 49(1), 63-93.
- Christiani, I., dan Nugrahanti, Y. W. (2014). Pengaruh kualitas audit terhadap manajemen laba. *Jurnal Akuntansi dan Keuangan*, 16(1), 52-62.
- Cohen, D. A., Dey, A., dan Lys, T. Z. (2008). Real and accrual-based earnings management in the pre-and post-Sarbanes-Oxley periods. *The accounting review*, 83(3), 757-787.
- Dechow, P. M., Sloan, R. G., dan Sweeney, A. P. (1995). Detecting earnings management. *Accounting review*, 193-225.
- Desai, M. A. (2003). The divergence between book income and tax income. *Tax policy and the economy*, 17, 169-206.
- Dewi, E. R., Nuraina, E., dan Amah, N. (2017). Pengaruh Tax Planning dan Ukuran Perusahaan Terhadap Manajemen Laba (Studi Empiris pada Perusahaan Property yang Terdaftar di Bursa Efek Indonesia). *FIPA: Forum Ilmiah Pendidikan Akuntansi*, 854-881.
- Febrian, R., Wahyudi, T., dan Subeki, A. (2018). Analisis Pengaruh Perencanaan Pajak dan Beban Pajak Tangguhan terhadap Manajemen Laba (Studi Kasus pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia). *Akuntabilitas*, 12(2), 145-160.
- Febriyanti, A., dan HANNA, H. (2014). Pengaruh deferred tax expense dalam mendeteksi earnings management dengan menggunakan pendekatan discretionary revenue. *Jurnal Bisnis dan Akuntansi*, 16(1), 1-11.
- Fitriany, L. C., Nasir, A., dan Ilham, E. (2016). Pengaruh Aset Pajak Tangguhan, Beban Pajak Tangguhan dan Perencanaan Pajak terhadap Manajemen Laba (Studi Empiris pada Perusahaan Manufaktur yang Terdaftar di Bei Tahun 2011-2013). *JOM Fekon* Vol 3 (1), 1150-1163.
- Fransisca, N. (2020). Pajak Penghasilan Badan: Jenis, Tarif, Hitung, dan Laporan Pajak - Klikpajak. Retrieved 29 November 2020, from <https://klikpajak.id/blog/perhitungan/pajak-penghasilan-badan-jenis-tarif-hitung-dan-laporan-pajak/>
- Guay, W. R., Kothari, S. P., dan Watts, R. L. (1996). A market-based evaluation of discretionary accrual models. *Journal of accounting research*, 34, 83-105.
- Gujarati, D.N., and Porter, D. C. 2009. *Basic Econometrics*. New York: McGraw-Hill.
- Hapsari, D. P., dan Manzilah, D. (2016). Pengaruh Perencanaan Pajak Terhadap Manajemen Laba Dengan Arus Kas Operasi Sebagai Variabel Kontrol. *JAK (Jurnal Akuntansi): Kajian Ilmiah Akuntansi*, 3(2), 54-65.
- Harrington, D. (2009). *Confirmatory Factor Analysis [Ebook]* (p. 61). New York: Oxford University Press. Retrieved from <http://ndl.ethernet.edu.et/bitstream/123456789/16973/1/24.pdf>
- Hidayat, A. (2014). Tutorial Cara Regresi Data Panel dengan STATA - Uji Statistik. Retrieved 22 March 2021, from <https://www.statistikian.com/2014/11/regresi-data-panel-dengan-stata.html>
- Ifada, L. M., dan Wulandari, N. (2015). THE EFFECT OF DEFERRED TAX AND TAX PLANNING TOWARD EARNINGS MANAGEMENT PRACTICE: AN EMPIRICAL STUDY ON NON MANUFACTURING COMPANIES LISTED IN INDONESIA STOCK EXCHANGE IN THE PERIOD OF

- 2008-2012. *International Journal of Organizational Innovation*, 8(1), 155-170.
- Jensen, M. C., dan Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, 3(4), 305-360.
- Jiwanggono (2014). ANALISA PENGARUH DEFERRED TAX ASSET, DEFERRED TAX LIABILITIES DAN TINGKAT HUTANG TERHADAP MANAJEMEN LABA PADA PERUSAHAAN SUB SEKTOR INDUSTRI MAKANAN DAN MINUMAN DI INDONESIA. *Jurnal TEKUN*, V(01), 125-146.
- Kementerian Keuangan Republik Indonesia. (2013). Undang-Undang KUP dan Peraturan Pelaksanaannya [Ebook]. Jakarta Selatan. Retrieved from <https://kemenkeu.go.id/sites/default/files/uu-kup%20mobile.pdf>
- Kim, Y., Liu, C., dan Rhee, S. G. (2003). The relation of earnings management to firm size. *Journal of Management Research*, 4, 81-88.
- Lee, C. W. J., Li, L. Y., dan Yue, H. (2006). Performance, growth and earnings management. *Review of Accounting Studies*, 11(2-3), 305-334.
- Lind, D., Marchal, W., & Wathen, S. (2019). *Basic Statistics for BUSINESS & ECONOMICS* (9th ed.). New York: McGraw-Hill/Irwin.
- Lu, Z. (2000). The valuation allowance for deferred tax assets and earnings management. University of Southern California Dissertations (UMI Number: 3018101).
- Lubis, I., dan Suryani, S. (2018). PENGARUH TAX PLANNING, BEBAN PAJAK TANGGUHAN DAN UKURAN PERUSAHAAN TERHADAP MANAJEMEN LABA (Studi Empiris pada Perusahaan Industri Barang Konsumsi di Bursa Efek Indonesia Tahun 2012–2016). *Jurnal Akuntansi dan Keuangan*, 7(1), 41-58.
- Mahpudin, E. (2017). Pengaruh Perencanaan Pajak terhadap Manajemen Laba pada Perusahaan yang termasuk dalam Jakarta Islamic Index. *Accountthink: Journal of Accounting and Finance*, 2(02), 389-403.
- Mangoting, Y. (1999). Tax Planning: Sebuah Pengantar Sebagai Alternatif Meminimalkan Pajak. *Jurnal Akuntansi dan Keuangan*, 1(1), 43-53.
- Miko, N. U., dan Kamardin, H. (2014). Detecting earnings management: comparative analysis of models in nigeria. *Journal of accounting frontier vol*, 16(2), 68-76.
- Morris, R. D. (1987). Signalling, agency theory and accounting policy choice. *Accounting and business Research*, 18(69), 47-56.
- Naz, I., Bhatti, K., Ghafoor, A., dan Husein, H. (2011). Impact of firm size and capital structure on earnings management: Evidence from Pakistan. *International Journal of Contemporary Business Studies*, 2(12), 22-31.
- Negara, A., Plasa, G. R., dan Saputra, I. D. (2017). Pengaruh perencanaan pajak dan beban pajak tangguhan terhadap manajemen laba. *E-Jurnal Akuntansi Universitas Udayana*, 20(3), 2045-2072.
- Noor, R. M., dan Aziz, Z. (2007). Earnings management and deferred tax. *Management dan Accounting Review (MAR)*, 6(1), 1-17.
- Phillips, J., Pincus, M., dan Rego, S. O. (2003). Earnings management: New evidence based on deferred tax expense. *The accounting review*, 78(2), 491-521.
- Presiden Republik Indonesia. (2008). UNDANG-UNDANG REPUBLIK INDONESIA NOMOR 36 TAHUN 2008 TENTANG PERUBAHAN KEEMPAT ATAS UNDANG-UNDANG NOMOR 7 TAHUN 1983 TENTANG PAJAK PENGHASILAN [Ebook]. Retrieved from <https://jdih.esdm.go.id/peraturan/UU%20No.%2036%20Thn%202008.pdf>
- PSAK 46 dan Aturannya Terkait Akuntansi Pajak Penghasilan. (2020). Retrieved 29 November 2020, from <https://www.online-pajak.com/seputar-pph-final/psak-46-aturannya-terkait-akuntansi-pajak-penghasilan>
- Roychowdhury, S. (2006). Earnings management through real activities manipulation. *Journal of accounting and economics*, 42(3), 335-370.
- Santana, D. K. W., dan Wirakusuma, M. G. (2016). Pengaruh Perencanaan Pajak, Kepemilikan Manajerial, dan Ukuran Perusahaan terhadap Praktek Manajemen Laba. *E-Jurnal Akuntansi Universitas Udayana*, 14(3), 1555-1583.
- Sibarani, T. J., Hidayat, N., dan Surtikanti, S. (2015). Analisis Pengaruh Beban Pajak Tangguhan, Discretionary Accruals, dan Arus Kas Operasi terhadap Manajemen Laba. *Jurnal Riset Akuntansi dan Perpajakan (JRAP)*, 2(01), 19-31.
- Siregar, S. V., dan Utama, S. (2008). Type of earnings management and the effect of ownership structure, firm size, and corporate-governance practices: Evidence from Indonesia. *The international journal of accounting*, 43(1), 1-27.
- Situmorang, R., dan Maulana, R. (2020). Nasib di Ujung Tanduk, Ini Jurus Tiga Pilar Sejahtera (AISA) Pertahankan Kelangsungan Usaha | Market - Bisnis.com. Retrieved 15 June 2021, from <https://market.bisnis.com/read/20200224/192/1204898/nasib-di-ujung-tanduk-ini-jurus-tiga-pilar-sejahtera-aisa-pertahankan-kelangsungan-usaha>
- Slemrod, J. (2004). The economics of corporate tax selfishness (No. w10858). National bureau of economic research working paper.
- Suranggane, Z. (2014). Analisis Aktiva Pajak Tangguhan dan Akrual sebagai Prediktor Manajemen Laba: Kajian Empiris pada Perusahaan Manufaktur yang Terdaftar di BEJ. *Jurnal Akuntansi dan Keuangan Indonesia*, 4(1), 77-94.
- Sutadipraja, M. W., Ningsih, S. S., dan Mardiana, M. (2019). Pajak Kini, Pajak Tangguhan, Aset Pajak Tangguhan, Liabilitas Pajak Tangguhan Terhadap Manajemen Laba. *Reviu Akuntansi dan Bisnis Indonesia*, 3(2), 149-162.
- Timuriana, T., dan Muhamad, R. R. (2015). Pengaruh aset pajak tangguhan dan beban pajak tangguhan terhadap manajemen laba. *JIAFE (Jurnal Ilmiah Akuntansi Fakultas Ekonomi)*, 1(2), 12-20.
- Undang-Undang Pajak Penghasilan Terbaru (UU PPh). (2020). Retrieved 29 November 2020, from <https://klikpajak.id/blog/berita-regulasi/undang-undang-pajak-penghasilan-terbaru-uu-pph/>
- Yorke, S. M., Amidu, M., dan Agyemin-Boateng, C. (2016). The effects of earnings management and corporate tax avoidance on

firm value. *International Journal of Management Practice*, 9(2), 112-131.

Yulianti, Y. (2005). Kemampuan Beban Pajak Tangguhan dalam

Mendeteksi Manajemen Laba. *Jurnal Akuntansi dan Keuangan Indonesia*, 2(1), 107-129.