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**BOOK TAX DIFFERENCES, OPERATING CASH FLOW,  
LEVERAGE AND EARNING PERSISTENCE**  
**(Empirical Study of Manufacturing Companies Listed on the Indonesia Stock  
Exchange)**

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**Abstract**

**1** Persistent earnings provide higher quality because investors can use current earnings to predict future earnings. This study examines the effect of book tax differences, operating cash flow and debt level on earnings persistence. The population in this study are manufacturing companies listed on the Indonesia Stock Exchange from 2013 to 2015. Based on data analysis with ordinary least square regression, the results show that two hypotheses accepted, namely temporary book tax differences, have a negative effect and operating cash flow has a positive effect on earnings persistence. Meanwhile, permanent book tax differences have no effect on earnings persistence. **Keywords:** temporary book tax differences, permanent book tax differences, operating cash flow, leverage, earnings persistence

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## INTRODUCTION

Earnings are important information for investors, because earnings show the financial performance of a company (Bandi, 2012). Earnings is commonly used as a basis for decision making by both internal and external parties, for example granting compensation and distributing bonuses to managers, measuring management performance, and determining the amount of tax imposed (De Simone, 2016). In order to provide better quality information, earnings must be of high quality. High quality earnings will provide more information about the company's financial performance that is relevant for decision making (Dechow, 2010).

Penman dan Zhang (2002) distinguish earnings into two groups, namely sustained earnings (earnings persistence or core earnings) and unusual earnings (transitory earnings). Earnings persistence is the income generated, which will occur repeatedly in the long run. Therefore, earnings persistence can be used as an indicator of future earnings. Meanwhile, transitory earnings is income generated temporarily and is that is not repeated. This type of earnings cannot be used as a prediction of future earnings (Tang and Firth, 2012). The information content of earnings with respect to future earnings depends on the earnings component. When accounting earnings consist mainly of transitory elements, the content of information regarding future earnings and stock prices is low. However, when earnings consist

mainly of permanent elements, the information content will be more important (Boubakri, 2012).

1 There are two proxies for measuring earnings quality, namely the concept of permanent earnings (Anctil & Chamberlain, 2005; Black, 1980; Ohlson & Zhang, 1998) and the concept of persistent earnings (Nichols & Wahlen, 2004; Penman & Zhang, 2002; Schipper & Vincent, 2003). Earnings persistence refers to the sustainability of current earnings for the coming period (Nichols & Wahlen, 2004; Schipper & Vincent, 2003) in Bandi (2012). Persistent earnings provide higher quality because investors can use current profits to predict future earnings. In this case, investors have more information about the company's performance in the future and are able to make better investment decisions. Thus, the more persistent earnings, the greater the value relevance for decision making (Bandi, 2012). Earnings information becomes a key element and becomes the basis for investors in making investment decisions. Therefore, earnings information must be relevant, reliable and free from manipulation.

Related to earnings, there is the phenomenon of book tax differences which is the difference between accounting earnings and fiscal income (Chi, Pincus, & Teoh, 2014). Book tax differences represent the difference between pre-tax earnings and taxable income reported to the tax office (Tang and Firth, 2011). Previous research shows that tax information contained in financial statements provides information about earnings persistence (Lev and Nissim 2004; Hanlon 2005; Blaylock, Shevlin, and Wilson, 2012). Some studies that examine the relationship between book tax differences with persistence of earnings have been made. Hanlon (2005) found that investors use book tax differences as a means to assess earnings quality and book tax differences are powerful tools to assess earnings persistence. 8

Despite this widespread attention, research focusing on the determinants of book tax differences and their effects on earnings persistence in developing countries is still limited. The current research focuses more on the determinants of book tax differences and their effects on earnings persistence in developed countries (Ismail et al., 2011; Waluyo, 2016; Fadilah and Wijayanti, 2017). In fact, developing countries and developed countries differ in terms of their economy and society (Hofstede and Hofstede, 2004) in Waluyo (2016). Developing countries are characterized by weaker capital markets, limited enforcement of regulations, and more concentrated ownership. In particular, developing countries and developed countries have substantial differences in accounting standards and regulations. Such conditions lead to greater information asymmetry and make it difficult for investors to assess company performance and make rational investment decisions (Ismail et al., 2011). In addition, different laws and regulations in each country allow different research results (Fadilah and Wijayanti, 2017). 3

Understanding the relationship between book tax differences and future earnings changes is important, because it helps users of financial statements more accurately anticipate the effects of various types of book tax differences and helps researchers interpret literature and previous findings (Jackson, 2015). For this reason Graham, Raedy, 10 and Shackelford (2012) and Hanlon and Heitzman (2010) suggested to examine the book tax differences components. Book tax differences have two components, namely temporary and permanent differences.

Temporary book tax differences occur because of differences in the time of recognition of income and costs according to accounting and according to taxation.

This difference is temporary because it will be identified in the next accounting period. When the difference between accounting income and income according to taxation is greater, hence there is an increased risk of deteriorating earnings quality (Noga and Schnader, 2013).

Temporary book tax differences occur when accounting standards and tax regulations recognize the same number of transactions at different times. A transaction can be recognized based on accounting standards, but it is not recognized based on tax regulations. (Sonnier et al., 2012). This difference is temporary because it will be identified in the next accounting period. In other words, all transactions are actually recognized by the accounting system and tax, but there are differences in the time of recognition. The difference between accounting standards and taxation regulations in accruals and relativization, depreciation, amortization, inventory valuation and calculation of loss compensation causes temporary book tax differences (Noor et al., 2009).

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Hanlon's (2005) research results prove that companies with large temporary book tax differences will have less persistent accruals and revenues. The same results are shown by Persada and Martani (2010). Some researchers also showed a negative relationship between temporary differences and earnings quality as measured by various proxies, including earnings growth (Jackson, 2009), change<sup>1</sup> in future net income (Jackson, 2015), and earnings growth (Waluyo, 2016). Based on the description above, the first hypothesis is formulated as follows:

H<sub>1</sub> : Temporary book tax differences have a negative effect on earnings persistence

Permanent differences occur because of income and expense transactions that are recognized under commercial accounting but are not recognized according to taxation rules. Permanent income is not recoverable in the future, so it has a high level of earnings persistence. Permanent differences occur because of differences in recognition between accounting rules and tax regulations relating to certain income and expenses. Permanent differences arise when certain income and expenses are recognized based on accounting standards, but not<sup>10</sup> recognized based on taxation regulations. Permanent differences produce the difference between accounting income and permanent taxable income. Permanent differences usually arise because tax laws require that some transactions are not included in the calculation of taxable income (Martinez and de Souza, 2012).

Research by Pratiwi and Zulaikha (2014) and Sari and Lyana (2015) prove that permanent differences have a positive influence on earnings persistence. Research conducted by Waluyo (2017) found that permanent differences positively<sup>3</sup> affect the company's profit growth. Jackson's (2015) research also shows a significant positive relationship between<sup>3</sup> permanent differences and changes in tax burden over periods 1, 3 and 5 years. Firms with large permanent differences will experience an increase in future tax burden even if they experience a decrease in pre-tax income at the same time. This condition shows that the average return on tax rates is effective. Companies with large permanent differences experience a large net profit recovery. Based on the description above, the second hypothesis is formulated as follows:

H<sub>2</sub> : Permanent book tax differences have a positive effect on earnings persistence

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Operating cash flow is the difference between earnings and accruals. Current earnings contain cash flow components and accrual earnings that determine the level of earnings persistence (Sloan, 1996; Penman, 2012). Cash flow is a better financial indicator than accounting, because cash flows are relatively more difficult to manipulate. Accounting manipulation is usually done through the use of different accounting methods for the same transaction with the aim of displaying the desired income (Fanani, 2010). When the company's operational activities are good, the earnings generated by the company will also be good. Therefore, the higher the component of operating cash flow contained in current earnings will be the higher the persistence of earnings.

Operating cash flows include cash generated and issued which is included in the determination of net income. Operating cash flow can be a positive signal given by managers to reduce information asymmetry. Information on operating income and cash flow can be used as the main tool to help investors and creditors reduce risk due to decision making. Therefore, the higher the value of operating cash flow in the company, the quality of earnings or earnings persistence will increase, and vice versa if the value of operating cash flow decreases, then the quality of earnings will decrease.

Many studies show the positive influence of operating cash flow on earnings persistence (Fajri and Mayangsari, 2012; Salsabilla, et al., 2016; Kasiono and Fachrurrozi, 2016). Bandi's study (2012) found that cash flow can predict future earnings. This finding shows that the higher the cash flow, the higher the quality or persistence of earnings. Based on the description above, the third hypothesis is formulated 2 follows:

H3: Operating cash flow has a positive effect on earnings persistence

In addition to book tax differences and operating cash flow, debt levels also have an influence on earnings persistence. Debt has consequences for a company, namely the obligation to pay interest and principal at maturity. The large level of corporate debt will cause the company to increase earnings persistence with the aim of maintaining good performance in the investors and auditors view point, so that creditors will continue to have trust in the company and easily disburse funds (Fanani, 2010).

The company can obtain funds through debt to finance its investment. The level of debt or leverage is used because it has a lower effect and risk. The large level of debt will cause companies to increase earnings persistence with the aim of maintaining good performance in the eyes of investors and auditors (Kasiono and Fachrerozi, 2016). Based on the company's good performance, it is expected that creditors will continue to have trust in the company, remain easy to disburse funds, and the company will get ease in the payment process (Fanani, 2010). The higher leverage indicates that the company will use accounting methods to increase current period earnings so that the company can still get the trust of investors and creditors. Therefore, violations of debt contracts can be prevented. The company seeks to increase earnings in certain periods with selected accounting policies (Magfirah and Kusmuriyanto, 2018). Fanani's study (2010) shows that leverage has a positive effect on earnings persistence. Based on the description above, the fourth hypothesis is formulated 12s follows:

H4: Leverage has a positive effect on earnings persistence

This study aims to examine the effect of book tax differences divided into temporary and permanent differences, operating cash flows, and leverage on earnings persistence with firm size as a control variable, especially in companies in the manufacturing sector listed on the Indonesia Stock Exchange (IDX). The results of this study are expected to contribute, both theoretically and practically in the field of financial accounting and capital markets. Earnings persistence is an indicator of a company's earnings quality. Therefore investors are expected to be more careful in considering the determinants of profit persistence, so that they can make investment decisions appropriately.

## METHOD

Manufacturing companies listed on the Indonesia Stock Exchange in 2013-2015 were selected as populations. Sampling technique uses purposive sampling, namely the selection of samples using certain criteria. These criteria include manufacturing companies which are successively listed on the Indonesia Stock Exchange, publish annual financial statements consistently, have no losses, use the rupiah, have complete information about fiscal corrections, and have positive operating cash flows. Based on these criteria the number of observations was 129 data.

A summary of operational definitions and measurement of independent and dependent variables is presented in Table 1.

Table 1  
Operational Definition and Variable Measurement

Variable	Operational Definition	Measurement	References
Earning Persistence	Earnings persistence is the expected revision of earnings in the future which is reflected in current year's earnings, and is one of the measuring instruments of earnings quality. Earnings persistence is measured by the slope coefficient of current earnings regression in lagged earnings.	$\frac{Earnings_{it}}{Outstanding\ shares_{it}} = \beta_0 + \frac{Earnings_{it-1}}{Outstanding\ shares_{it-1}}$	Penman dan Zhang (2002), Pranata et al (2004), Fanani (2010),
Temporary book tax differences	10 Difference between taxable income and net income (temporary & permanent written in notes to the financial statements) with the scale of total assets	$BTDT = \frac{\text{Total temporary differences}}{\text{Total Aset}}$	Pratiwi dan Zulaikha (2014)
Permanent book tax differences		$BTDP = \frac{\text{Total Permanent Differences}}{\text{Total Aset}}$	Pratiwi dan Zulaikha (2014)
Cash flow from operating	Cash flows from current year activities are cash inflows and cash outflows	$CFO = \ln(Cash\ Flow\ From\ Operational\ Activities)$	Kasiono dan Fachrurrozie (2016), Barus dan Rica (2014)
Leverage	Comparison between total debt value to total asset value, which is the percentage of funds provided by creditors for the company.	$Lev = \frac{\text{Total Debt}}{\text{Total Aset}}$	Fanani (2010), Widiatmoko dan Indarti (2018a, 2018b)
Size of firms	Company size is measured using natural log of assets of each company	$SIZE = \ln(TA)$	2 dilah dan Wijayanti, (2017)

The data analysis technique used in this study is ordinary least square regression (OLS) with the following equation.

$$EP_{it} = \alpha + \beta_1 TBTD_{it} + \beta_2 PBTD_{it} + \beta_3 CFO_{it} + \beta_4 LEV_{it} + \beta_5 SIZE_{it} + \varepsilon$$

Where:

- $EP_{it}$  : Earning persistence of firms i in year t
- $TBTD_{it}$  : Temporary book-tax difference of firms i in year t
- $PBTD_{it}$  : Permanent book-tax difference of firms i in year t
- $CFO_{it}$  : Cash flow from operating of firms i in year t
- $LEV_{it}$  : Leverage of firms i in year t
- $SIZE_{it}$  : Size of firms i in year t
- $\beta_1 \beta_2 \beta_3 \beta_4 \beta_5$  : coefficient beta
- $\varepsilon$  : error term

Prior to regression testing, normality and classical assumptions are tested as a condition of using ordinary least square regression (OLS).

## RESULT AND DISCUSSION

Before testing multiple linear regression, normality and classic assumptions are tested. The initial test results with 129 data shows a Zskewness value of -28.65, smaller than -1.96. These results prove that the residuals in the regression model are not normally distributed, so that data transformation is carried out by issuing extreme data (outliers). The results of normality testing after removing outlier data obtained Zskewness figures of -0.59, smaller than 1.96. It can be concluded that the normality requirements are met.

Table 2 shows that the significant values for all independent variables are above 0.05. Based on these results it can be concluded that there was no heteroscedasticity in the regression model.

Table 2  
Heteroscedasticity Test Results

Model	Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig.
	B	Std. Error			
TBTD	-8,788	5,016	-0,183	-1,752	0,083
PBTD	-1,953	2,559	-0,076	-0,763	0,447
CFO	-0,026	0,061	-0,067	-0,423	0,674
LEV	0,428	0,250	0,175	1,710	0,091
SIZE	-0,035	0,070	-0,080	-0,501	0,617

Dependent Variable: ABSRESID

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The information in Table 3 shows that all independent variables have tolerance values above 0.10 and the value of the variance inflation factor (VIF) is below 10. It can be concluded that in the regression model multicollinearity does not occur. The Durbin-Watson values in Table 3 show a figure of 1,820. This value is between du (1.7809) and 4-du (2.2191), the regression model is free of the autocorrelation problem.

The regression test results presented in Table 3 show the adjusted R Square value of 0.235, which means that 23.50% of the variation in earnings persistence can be explained by temporary differences, permanent differences, operating cash flow,

debt levels, and company size as variables control. The remaining 76.50% is explained by other variables not included in this research model. The calculated F value is 7.152, with a significance level of 0.000, indicating that the model is feasible to use. 6

Table 3  
Regression Testing Results

Model	Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig.	VIF
	B	Std. Error				
Constant	0,937	2,054		0,456	0,649	
TBTD	-15,918	7,956	-0,187	-2,001	0,048	1,148
PBTD	2,949	4,058	0,065	0,727	0,469	1,043
CFO	0,233	0,097	0,344	2,418	0,018	2,641
LEV	-1,993	0,397	-0,463	-5,021	0,000	1,110
SIZE	-0,204	0,112	-0,261	-1,829	0,071	2,659
DW	: 1,820					
R <sup>2</sup>	: 0,273					
R <sup>2</sup> Adjusted	: 0,235					
F <sub>hitung</sub>	: 7,152					
Sig F	: 0,000					

Based on Table 3 it can be seen that the results of testing the first hypothesis obtained the value of the beta coefficient of a temporary difference variable of -15,918 with a significance value of 0.048, smaller than 0.050. These results indicate the first hypothesis which states that temporary book tax differences have a negative effect on earnings persistence received.

This shows that the greater the temporary difference produced the lower the profit persistence, and vice versa. The amount of positive correction due to temporary differences will have an impact on the amount of deferred taxes. If the deferred tax is large, it will cause a decrease in net income. Companies that have high book tax differences will have less persistent accruals and income (Hanlon, 2005). This research is in line with previous research conducted by Persada and Martani (2010), Jacson (2009; 2015), and Waluyo (2016) which concluded that temporary differences negatively affect the quality of earnings.

Based on the agency perspective, agency conflicts occur because managers have the authority to choose the accounting recognition method that they want to maximize their own profits, without thinking about their responsibilities to shareholders, thus causing agency costs. With the agency cost, temporary differences can provide information to shareholders about management authority in accrual processes, because there is little freedom of accounting recognition methods that are allowed in measuring fiscal earnings that have an impact on decreasing net income.

Permanent difference has a beta value of 2.949 with a significance value of 0.469. These results indicate that permanent differences do not affect earnings persistence. Thus the second hypothesis which states the permanent difference variable has a positive effect on earnings persistence is rejected.

That is, the size of the permanent difference does not affect the future profit growth. This condition is caused by there are items of permanent difference such as income that are subject to final tax and are not taxable objects that can reduce fiscal earnings, and are accompanied by non-taxable costs that can add to fiscal earnings. The current tax burden does not show a significant change in net income after tax.

In accordance with the agency theory, permanent differences are a result of the use of managerial authority in managing accounting earnings with the intention of avoiding taxable earnings, thereby increasing net income to meet the interests of investors in making decisions. However, investors are more focused on the growth of earnings that guarantee the continuity of dividends without regard to permanent differences. This can explain that permanent differences do not affect the persistence of earnings. This result is in line with research conducted by Septavita (2016) and Salsabilla, et al (2016) which states that permanent differences do not have a relationship to earnings persistence.

The beta value in the operating cash flow variable is 0.233, significant at the 5% level. It can be concluded that operating cash flow has a positive effect on earnings persistence. Thus the third hypothesis which states that operating cash flow variables have a positive effect on earnings persistence is accepted. The higher the value of operating cash flow in the company, the quality of earnings or earnings persistence will increase, and vice versa if the value of operating cash flow decreases, the quality of earnings will also decrease. This can be interpreted if the company's operations are good, it will generate good and persistent earnings, in other words the company has cash to carry out its operations again without having to borrow or seek capital from other parties.

Operating cash flow is able to provide a positive signal to investors and creditors in making decisions and reducing risk, because basically operating cash flow can be used as a benchmark in acting other than earnings. This result is in accordance with previous studies conducted by Fajri and Mayangsari (2012), Salsabilla, et al. (2016), and Kasiono and Fachrurrozie (2016), which states that operating cash flows have a positive effect on earnings persistence. Bandi's Research (2012) also found that cash flow can predict future earnings.

The results of the study prove that the level of debt has a significant negative effect on earnings persistence. Negative influence shows that the greater the level of debt, the lower the persistence of earnings, and vice versa. Debt contains the consequence that the company must pay interest and principal at maturity, so that earnings derived by the company will be prioritized to pay debts and interest, rather than to maintain the company's income in financing the company's operations. Therefore, the level of debt will have an impact on the company's earnings decline in the future. This is in accordance with agency theory, which states that creditors pay more attention to the company's ability to repay debts, while investors are more towards the company's ability to recover funds to make investments, so that the use of debt that is too large will lead to agency conflict between creditors and investors that can cause the existence of debt agency costs. The results of this study are consistent with the research conducted by Kasiono and Fachrurrozie (2016) who found that the level of debt has a significant negative effect on earnings persistence.

## CONCLUSION

This study examines the effect of temporary differences, permanent differences, operating cash flow, and debt levels on earnings persistence. The results showed that the temporary book tax differences negatively affected the persistence of earnings. The higher the value of book tax differences, the greater the accrual level and worsening earnings quality risk. Operating cash flow has a positive effect on earnings persistence. The higher value of operating cash flow indicates that earnings

quality is getting better. Different results occur in the permanent book tax differences variable, which does not affect the persistence of earnings. Meanwhile, contrary to what was hypothesized, the level of debt has a negative effect on earnings persistence. This condition shows that the higher the level of debt, the higher the company's obligation to repay loans and interest so that earnings will decrease.

The weaknesses of this study include the relatively low adjusted R<sup>2</sup> value of 27.3%, which means that the ability of the independent variable to explain the variation of the dependent variable is only 27.3% and the remainder is explained by variables not included in this research model. Future research is expected to be able to use other variables in predicting earnings persistence, for example accrual levels, cash dividends, and audit quality (Mousa and Desoky, 2019).

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