The impact of Taxable Income on Stock Return: A Case Study of 45 Liquid Stocks on the Indonesian Stock Exchange

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Abstract. The Enron case, where the company reported substantial earnings yet avoided income tax payments, highlighted the importance of taxable income as a key indicator in evaluating earnings quality and stock returns. Studies suggest that earnings manipulation can stem from timing discrepancies in accounting entries. This research examines how variations in taxable income affect stock returns, using a sample of forty-five highly liquid stocks listed on the Indonesian Stock Exchange (IDX). By focusing solely on temporary adjustments and omitting permanent book income changes, this study sheds light on the relationship between taxable income and stock performance.

Keywords: Taxable Income, Book Income, Stock Return.

1 Introduction

The New York Times reported that, in the years leading up to its 2001 bankruptcy, Enron paid no income tax in four out of five years, despite declaring substantial earnings [1]. Lev et al. [2] noted this gap, proposing that investors may have missed an essential metric of earnings quality—taxable income. Subsequent studies by Lev et al. [2], Ayers et al. [3], and Hanlon et al. [4] emphasize that taxable income is crucial for investors when assessing a company's financial performance and potential stock returns.

Taxable income, also known as taxable profit or tax loss, is defined by tax authorities and may differ from accounting profit (book income), as outlined in International Accounting Standard (IAS) 12. The discrepancy between taxable and book income consists of two components: timing differences and permanent differences. Timing differences occur when discrepancies between taxable and accounting profit arise in one period and reverse in future periods. Permanent differences, on the other hand, arise in a single period and do not reverse in the future.

Research by Lev et al. [2] and Blaylock et al. [5] has shown a positive link between taxable income and stock returns, indicating that taxable income can serve as a reliable indicator of financial performance. Ayers et al. [3] further observed that taxable income may offer a clearer measure of performance, particularly when management potentially adjusts book income to keep taxable income lower and thus minimize tax liabilities.

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Previous studies, including those by Burgstahler and Dichev [6], Roychowdhury [7], Cohen et al. [8], Phillips et al. [9], and Graham et al. [10], suggest that firms may adjust earnings figures to circumvent financial challenges. This practice is often aimed at achieving targets such as matching prior-year profits, meeting analysts' expectations, or avoiding reported losses. Further research by Phillips et al. [9], Graham et al. [10], and Wang et al. [11] notes that earnings manipulation frequently involves timing differences, affecting deferred tax expenses or income. Thus, this study excludes permanent adjustments to focus on how timing differences in taxable income impact stock returns.

This research investigates how fluctuations in taxable income influence stock returns, focusing on a sample of forty-five highly liquid stocks listed on the Indonesian Stock Exchange (IDX). By excluding permanent adjustments from book income, this study offers valuable insights into the relationship between taxable income and stock performance.

2 Research Design

To estimate taxable income, we adjust book income by factoring in deferred tax expenses or income, recognizing that financial statements may not completely capture taxable income. The book income utilized in this study is derived from earnings relevant to fundamental stock analysis. Permanent differences are excluded from this analysis, as earnings manipulation primarily occurs through timing differences that influence deferred tax expenses or income, as observed by Phillips et al. [9], Graham et al. [10], and Wang et al. [11]

We hypothesize that changes in taxable income affect stock returns and use the following equation to estimate taxable income (TI):

$$TI = BI \pm \left(\frac{DT}{CTR}\right) \tag{1}$$

where **BI** represents book income, **DT** refers to deferred tax expenses or income, and **CTR** is Indonesia's statutory corporate tax rate.

In this study, the independent variable is the change in taxable income (ΔTI_j), calculated by subtracting the prior year's taxable income from the current year's taxable income for each firm *j*.

The dependent variable, holding period stock return (HPR) for firm *j*, is determined as follows:

$$\mathrm{HPR_j} = \frac{\mathrm{P_{j,t}} - \mathrm{P_{j,t-1}}}{\mathrm{P_{j,t-1}}} \tag{2}$$

Here, $P_{j,t}$ represents the closing stock price at the end of the current year, while $P_{j,t-1}$ denotes the closing stock price at the end of the previous year for firm *j*.

To analyze the effect of changes in taxable income (ΔTI) on stock returns (HPR) for firm j, we apply a linear regression model with cross-sectional and time-series panel data, as outlined in the following equation:

$$HPR_j = \alpha_0 + \alpha_1 \Delta TI_j + \alpha_2 \Delta IND + \varepsilon \tag{3}$$

The equation includes control variables to account for changes in the Indonesian Stock Exchange Index (ΔIND), calculated by subtracting the previous year's index value from the current year's value

3 Data

Financial data were gathered from forty-five highly liquid stocks listed in the LQ45 index on the Indonesian Stock Exchange (IDX) for the period from 2016 to 2022. After removing 9 outlier data points, the analysis included a total of 259 observations. Table 1 provides descriptive statistics for the variables.

Table 1. Summary of Descriptive Statistics for Stock-Specific Variables

	HPR	ΔTI	ΔIND
Mean	0.1110	395143	0.0126
Median	0.0269	88507	-0.00037
Maximum	2.0743	60682871	0.23028
Minimum	-0.8576	-1.27E+08	-0.0090
SD	0.4653	12086048	0.1030
Skewness	1.3876	-5.1456	1.1758
Kurtosis	6.4879	61.2333	3.3361

Multicollinearity tests were conducted, revealing no multicollinearity issues among the independent variables. The panel data regression results (see Table 2) show a positive relationship between changes in taxable income and stock returns, aligning with findings from prior studies by Lev et al. [2] and Blaylock et al. [5].

The Common Effects Model (CEM) emerged as the best fit, confirming that both changes in taxable income and fluctuations in the Indonesian Stock Exchange Index have a significant effect on stock returns:

Table 2. Panel data regression

	coefficient	t-statistics	*p*-value
ΔTI	5.28E-09	2.226703	0.0269
ΔIND	0.786052	2.825662	0.0051
Constant	0.099046	3.442959	0.0007
N	45		
Observation	259		

Adj. R^2	0.044108
Durbin-Watson	1.855172
F-Statistics	6.837135
Prob(F-statistic)	0.001284

The Common Effects Model (CEM) regression indicates that changes in taxable income (ΔTI) and changes in the Indonesian Stock Exchange Index (ΔIND) impact stock returns (HPR). The CEM model is presented below:

$$\mathrm{HPR} = 0.0990 + 0.7860 * \Delta\mathrm{IND} + 5.2772\mathrm{e}-09 * \Delta TI \quad (4)$$

4 Conclusion

This study confirms that changes in taxable income significantly affect stock returns for highly liquid stocks on the IDX. We suggest that investors consider taxable income, which permanent differences are excluded, as a supplemental metric when evaluating a company's financial stability. Enron's minimal tax payments before bankruptcy underscore the risks of overlooking this key indicator.

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