THE INFLUENCE OF CAPITAL INTENSITY AND FISCAL LOSS COMPENSATION ON TAX AVOIDANCE (STUDY OF FOOD AND BEVERAGES COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE FROM 2010-2015)

Kurnia¹, Dudi Pratomo², Dimas Gusti Raharja³

¹,²,³ Accounting Department
Telkom University, Jl Telekomunikasi Terusan Buah Batu Bandung, West Java, Indonesia 40257
(022) 756 4108, +6281316748159, +62818644033, +6285720111234
akukurnia@telkomuniversity.ac.id; dudipratomo@telkomuniversity.ac.id;
dimasraharja@student.telkomuniversity.ac.id

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ABSTRACT
Taxes are a compulsory contribution for taxpayers for States that are forcing under the Act, not receiving direct feedback, and as much as possible for the welfare of the people. Taxes are one factor that can reduce earnings of taxpayers. In relation to taxes, companies want to maximize the value of the company by generating maximum profits while governments want to maximize tax revenue from the taxation sector of the state. To maximize profits, companies may engage in tax avoidance practices. The goal of this study was to analyze the effect of capital intensity and fiscal loss compensation on tax avoidance. Food and beverages companies listed on the Indonesia Stock Exchange (BEI) between 2010-2015 represent the study population. All data were analyzed using panel data regression analysis. The results showed that capital intensity and fiscal loss compensation simultaneously affected tax avoidance. Capital intensity significantly encouraged tax avoidance practices, while fiscal loss compensation had no significant impact on tax avoidance.

INTRODUCTION
Tax is a compulsory contribution made to a country by individual or corporate taxpayers under the act, by not obtaining direct remuneration and
used for state purposes for the greatest possible prosperity of the people (General Provisions And Tax Procedures No. 28, 2007).

In Indonesia, taxes have a great potential for supporting the government and its required revenues (Soewardi, Ananda, and Khusaini, 2017). The government uses taxes to pay for programs aimed at general welfare of the people, including improvements in education, welfare programs, infrastructure projects that promote economic growth, programs that support defense and security, and for regional development. Taxes are the largest revenue source used to support state budgets. The year-to-year composition of increased tax revenue in the State Budget, Revenue and Expenditures (APBN) is shown in Table 1.

Table 1. Composition of tax revenues in APBN 2010-2015

<table>
<thead>
<tr>
<th>Description</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>State income</td>
<td>995,3</td>
<td>1.210,6</td>
<td>1.338,1</td>
<td>1.438,9</td>
<td>1.550,6</td>
<td>1.761,6</td>
</tr>
<tr>
<td>Tax revenue</td>
<td>628,2</td>
<td>742,7</td>
<td>835,8</td>
<td>921,4</td>
<td>985,1</td>
<td>1.294,3</td>
</tr>
<tr>
<td>Percentage</td>
<td>63,11%</td>
<td>61,34%</td>
<td>62,46%</td>
<td>64,03%</td>
<td>63,53%</td>
<td>73,47%</td>
</tr>
</tbody>
</table>

Source: Ministry of Finance (2017)

Tax revenue in the state budget increased from from 2010 to 2015 (Table 1), which demonstrates the importance of taxes as a source of state income. Taxes improve national development, especially when companies become taxpayers.

A company as a taxpayer has an obligation and responsibility to pay taxes. However, taxes can reduce net profit of the company. Therefore, companies may take an aggressive approach in the implementation of its taxation (Chen, Chen, Cheng & Shevlin, 2010).

According to Balakrishnan, Blouin & Guay (2011), tax aggressiveness reduces tax payment obligations; thus, companies that practice tax aggressiveness to minimize tax burden will not be transparent about their own financial information.

Tax avoidance and tax evasion represent two ways of avoiding tax payments (Pohan, 2016). Tax avoidance is an attempt to avoid taxes by using methods and techniques that take advantage of weaknesses in tax laws and regulations. Tax evasion is fraud or tax smuggling, characterized by hiding realistic financial information.

One tax avoidance case in Indonesia is the case of PT Coca Cola Indonesia (PT CCI). Mustami (2014) stated alleged tax avoidance activities by PT CCI resulted in a shortage of tax revenue worth Rp 49.24 billion. An investigation conducted by the Directorate General of Taxes (DGT) - Ministry of Finance found massive cost swellings in 2002, 2003, 2004, and
2006. These substantial expenses made by PT CCI resulted in a reduced taxable income, which reduced overall tax liabilities. One questionable expense resulted from Coca Cola advertisements during 2002-2006 that totaled Rp 566.84 billion. According to the DGT, the total taxable income of PT CCI from 2002-2006 was Rp 603.48 billion. However, PT CCI calculated their taxable income to be only Rp 492.59 billion. Based on this difference, the DGT calculated the shortfall of income tax (PPh) to be Rp 49.24 billion for PT CCI.

Many factors influence tax avoidance, including capital intensity and fiscal loss compensation (Dharma and Noviari, 2017; Putra and Merkusiwati, 2016; Kurniasih and Sari, 2013; Sari, 2014), however the results of the studies were not consistent. Capital intensity influences tax avoidance because it describes how many companies invest fixed assets in their own company. According to Rodríguez and Arias (2012), a company can deduct taxes from the annual depreciation of its fixed assets. The greater the cost of depreciation, the less profit there will be for the company. Reduced taxable profit will reduce the tax burden of the company (Mulyani, Darminto & Endang, 2014). Therefore, firms with large fixed assets pay proportionally less taxes, since firms benefit from the depreciation of fixed assets that reduces the tax burden.

Previous studies arrived at different conclusions concerning the effect of capital intensity on tax avoidance. According to Dharma and Noviari (2017), capital intensity significantly encourages tax avoidance behaviors. However, Putri and Lautania (2016) concluded that capital intensity discouraged tax avoidance; whereas Putra and Merkusiwati (2016) concluded that capital intensity has no effect on tax avoidance practices.

Compensation for loss (carrying loss) is a process in which the losses from one tax year are carried over to the following taxable years. Such losses can be compensated for over the next five years and the profits of the company will be used to reduce the amount of such compensation in accordance with Income Tax Act No. 36 of 2008 Article 6 paragraph (2). Thus, for five years, the company’s tax burden will be lessened, since taxable profits can be used to reduce the amount of compensation loss. According to Ginting (2016), loss compensation is the difference between income and expenses that takes into account income tax provisions. Compensation of fiscal loss can be interpreted as a process of transitioning loss from one period to the next. This means that a company’s losses will not be taxed, such that losses in the previous period can minimize the tax burden in the next period.

Regarding the effect of fiscal loss compensation on tax avoidance, varying results were obtained in previous studies. Dunbar, Higgins, Phillips & Plesko (2010) stated that fiscal loss compensation has a significant effect on the positive direction. Kurniasih and Sari (2013) stated that fiscal loss compensation significantly affected tax avoidance in the negative direction. Sari (2014) stated that fiscal loss compensation has no effect on tax avoidance.

**LITERATURE REVIEW**

**Taxes**
Taxes are a compulsory contribution to a country owed by an individual or a coercive body under the Act, by not getting a reward directly and used for the purposes of the state for the greatest prosperity of the people (General Provisions And Tax Procedures No. 28 (2007)).

**Tax Avoidance**

According to Pohan (2013), tax avoidance is a legal effort made by taxpayers to minimize tax payments that do not violate tax provisions. The methods and techniques of tax avoidance take advantage of weaknesses in tax laws to minimize the amount of payable tax. According to Mardiasmo (2016), tax avoidance is an attempt to lighten the tax burden by not violating applicable tax laws. Thus, it can be concluded that tax avoidance exploits weaknesses in the law to legally reduce tax burden.

The tax avoidance measurement estimation model based on the Cash Effective Tax Ratio (CETR) model is expected to be able to identify the aggressiveness of corporate tax planning (Chen et al., 2010) using the following formula:

\[ \text{CETR} = \frac{\text{Cash Tax Paid}}{\text{Pre – Tax Income}} \]

**Capital Intensity**

According to Darmadi (2013), capital intensity describes the number of investment companies to fixed assets. Capital intensity is defined as the ratio of fixed assets (e.g., equipment, machinery, and properties) to total assets (Noor, Fadzilah & Mastuki, 2010). This capital intensity ratio describes how much of the company's assets are invested in fixed assets. According to DeFond and Hung (2001), capital intensity is the amount of corporate capital invested in fixed assets of a company that is usually measured by the ratio of fixed assets divided by total assets. In this study, capital intensity is measured using the Capital Intensity Ratio, as follows:

\[ \text{CIR} = \frac{\text{Total Aset Tetap}}{\text{Total Aset}} \]

**Fiscal Loss Compensation**

The process of loss compensation in a tax year to the following taxable years is called carrying lost. Income compensation in income tax is regulated by Law No. 36 of 2008 Article 6 paragraph (2) of income tax, as follows:

a. Fiscal loss compensation is incurred if for the previous tax year there is a fiscal loss (Annual Tax Returns are Nil / Paid but there is a loss)

b. Fiscal losses arise if gross income is reduced by allowable deductions to a loss

c. Such fiscal losses are offset against the net fiscal income or net fiscal profit commencing the subsequent tax year after the year in which the losses are incurred for up to 5 (five) years
d. The provisions for the period of recognition of fiscal loss compensation shall be applicable for the tax year beginning in 2009, for the preceding taxable year, the provisions of Law no. 17 of 2000 on income tax. Fiscal loss compensation can be measured using dummy variables, which will be given a value of 1 if there is fiscal loss compensation at the beginning of year $t$.

**Framework**

Some firms make major investments in fixed assets to avoid taxes because the firms will benefit from the depreciation of their fixed asset investments. Depreciation reduces profit because depreciation expense will reduce taxable income. In addition to tax avoidance, companies can use fiscal loss compensation because the losses incurred by the company can be compensated over the next five years and the company’s profit will be used to reduce the amount of such compensation.

**Capital Intensity on Tax Avoidance**

Capital intensity describes the amount of corporate investment in fixed assets. According to Rodríguez and Arias (2012), depreciation of fixed assets allow a company to reduce tax payments annually. Depreciation of fixed assets can become an expense in the company’s financial statements, which can reduce the company’s revenue. The greater the cost of depreciation, the greater the reduction in taxable profits, which reduces the company’s overall tax burden. Liu and Cao (2007) indicated that asset depreciation is driven by tax law, which allows for depreciation expenses to be deducted from profits before taxation.

**Fiscal Loss Compensation on Tax Avoidance**

According to Law No. 36 of 2008 concerning income tax, fiscal loss compensation is the compensation incurred if there was a fiscal loss in the previous fiscal year. Companies that suffer losses in an accounting period are liable to pay their taxes. These losses can be compensated over the next five years and the company’s earnings will be used to reduce the amount of compensation losses. During those five years, taxable profits will be used to reduce the amount of compensation losses, which will spare the company from the tax burden. This minimizes the taxes to be paid, because the rate of profit owed will be small. Loss compensation is only permitted for the next 5 (five) years, consecutively. According to Kurniasih and Sari (2013), a company that experienced a loss in an accounting period is given a waiver to pay its taxes. Thus, fiscal loss compensation has a significant effect in the negative direction toward tax avoidance.

The systematic framework of thought, which is based on the foundation of theory and the previous research discussed above, is shown in Figure 1, as follows:
THE INFLUENCE OF CAPITAL INTENSITY AND FISCAL LOSS COMPENSATION ON TAX AVOIDANCE (STUDY OF FOOD AND BEVERAGES COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE FROM 2010-2015)

Research Hypotheses

Based on research questions, objectives, theories, previous research, and the frame of thought, the hypotheses of this study are:

H1: Capital intensity and fiscal loss compensation simultaneously affect tax avoidance practices of food and beverages companies listed on the Indonesia Stock Exchange from 2010-2015.

H2: Capital intensity partially positively affects tax avoidance practices of food and beverages companies listed on the Indonesia Stock Exchange from 2010-2015.

H3: Partial fiscal loss compensation has a negative effect on tax avoidance practices of food and beverages companies listed on the Indonesia Stock Exchange from 2010-2015.

MATERIALS AND METHODS

Methodology

In this work, the study population consists of 14 food and beverages companies listed on the Indonesia Stock Exchange (BEI) from 2010-2015. The sampling technique used in this research was purposive sampling using the following sample selection criteria: (1) food and beverages companies consistently listed in the Indonesia Stock Exchange (BEI) between 2010-2015, (2) food and beverages companies that consistently submitted Financial Statements to the Indonesia Stock Exchange between 2010-2015, and (3) completed the required information related to the calculation indicators used as variables in this study. Thus, 54 samples were obtained that consisted of nine food and beverages companies with a research period of six years. Data were analyzed by descriptive statistical analysis and panel data regression analysis. The panel data model analysis equation used in this research is:

\[ Y = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \epsilon \]

Explanation:

\[ Y \] = Tax avoidance on company i year t
\[ \alpha \] = Constants.
\[ \beta_1, \beta_2 \] = The regression coefficients of each variable.
\[ X_{1it} = \text{Capital intensity in company i year t} \]
\[ X_{2it} = \text{Fiscal loss compensation in company i year t} \]
\[ \epsilon \] = Error term
RESULTS AND DISCUSSION

Descriptive Statistics Analysis

The results of the descriptive statistic test are shown in Table 2 below.

<table>
<thead>
<tr>
<th>CETR</th>
<th>CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.2799</td>
</tr>
<tr>
<td>Maximum</td>
<td>0.4710</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.2195</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0.0650</td>
</tr>
</tbody>
</table>

It can be seen that the mean value of Capital Intensity (CI) and tax avoidance (CETR) is higher than the standard deviation which means the data used does not vary.

Table 3. Results of Fiscal Loss Compensation Test

<table>
<thead>
<tr>
<th>CETR &lt; 25%</th>
<th>CETR ≥ 25%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doing FLC</td>
<td>2</td>
</tr>
<tr>
<td>Not Doing FLC</td>
<td>9</td>
</tr>
</tbody>
</table>

In Table 3, it is known that of the 54 sample units that compensate for fiscal loss, only 2 sample units were below the CETR criterion of 25% and 6 sample units (75%) were above 25%. Nine samples that do not compensate for fiscal loss were below the CETR criterion of 25% and 37 samples (80%) were above 25%.

Panel Data Regression Analysis

The appropriate model for this research is the Fixed Effect. The Fixed Effect model test results in this study were processed using software Eviews version 9 and are presented in Table 4 below:

Table 4. Common Effect Model

Dependent Variable: TA

Method: Panel EGLS (Cross-section weights)
Date: 08/01/17 Time: 07:32
Sample: 2010 2015
Periods included: 6
Cross-sections included: 9
Total panel (balanced) observations: 54
Linear estimation after one-step weighting matrix

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.169420</td>
<td>0.032333</td>
<td>5.239818</td>
<td>0.0000</td>
</tr>
<tr>
<td>CI</td>
<td>0.254025</td>
<td>0.090277</td>
<td>2.813824</td>
<td>0.0082</td>
</tr>
</tbody>
</table>
The regression equation of panel data (see below) was formulated based on the results from the Fixed Effect model (Table 4). This equation helps to explain the effect of capital intensity and fiscal loss compensation on tax avoidance of food and beverage companies listed in the BEI from 2010-2015.

\[ Y = 0.169420 + 0.254025CI - 0.008314FLC + \varepsilon \]

The above regression equation can be interpreted as follows:

1. The value of the constant on the fixed effect model testing result is 0.169420. This shows that if the variable of capital intensity (CI) and fiscal loss compensation (FLC) are zero, the tax avoidance (TA) variable is 0.169420.

2. Regression coefficient variable of capital intensity (CI) has a value of 0.254025. This indicates that if the variable capital intensity (CI) is increased by 1 unit, assuming another variable is 0, then the tax avoidance (TA) variable will increase to 0.254025.

3. The regression coefficient of fiscal loss compensation variable (FLC) has a value of -0.008314. This shows if the fiscal loss compensation variable is increased by 1 unit, assuming another variable is 0, then the tax avoidance (TA) variable will decrease to 0.008314.

**HYPOTHESIS TESTING**

**F-Test (Simultaneous)**

In this research, the F-test is used to test whether the variables of capital intensity and fiscal loss compensation have a simultaneous influence on the tax avoidance variable. Based on F-test results in Table 4, the probability (F-statistic) value is 0.002984, which means the probability (F-statistic) is <0.05 level of significance. Based on the results of the test, can be concluded that Ho is rejected and Ha is accepted; thus, it can be concluded that capital intensity and fiscal loss compensation have a simultaneous and significant effect on tax avoidance.
t-Test (Partial)
In this research, the t-test is used to test the influence of capital intensity and fiscal loss compensation on variable tax avoidance. Based on t-test results presented in Table 4, it can be concluded that:
1. The probability (t-statistic) capital intensity (CI) value of 0.0082 indicates that the probability (t-statistic) of capital intensity (CI) is <0.05. Thus, Ho is rejected, and it can be concluded that capital intensity of the company has a partial effect on tax avoidance.
2. The probability (t-statistic) of fiscal loss compensation value of 0.4661 indicates that the probability (t-statistic) of fiscal loss compensation is > 0.05. Thus, Ho is accepted and it can be concluded that partial fiscal loss compensation is partial and has no effect on tax avoidance.

Determinant coefficient ($R^2$)
The determinant coefficient ($R^2$) measures the extent of the model's ability to explain the variation of the dependent variable. The Adjusted R-Squared value was 0.352557, or 35% (Table 4). This value indicates that the independent variables of capital intensity and fiscal loss compensation can explain 35% of the dependent variable (tax avoidance), while the remaining 65% can be explained by other factors or variables outside this research.

RESULTS AND DISCUSSIONS

Effect of Capital Intensity on Tax Avoidance
This work showed that capital intensity has an effect on tax avoidance. Capital intensity had a positive regression coefficient of 0.254025, which means that as capital intensity increases, tax avoidance will also increase. Conversely, smaller values of capital intensity will result in decreased tax avoidance. This is because the fixed assets of each company will experience depreciation, which can be used to reduce the amount of profit before tax. In this way, the company will strive to optimize their investments in fixed assets, with the aim of minimizing tax burden. The results of this study are consistent with the hypothesis that capital intensity has a significant effect on the positive direction of tax avoidance, which is consistent with the research of Dharma and Noviari (2017) that states that capital intensity has a positive effect on tax avoidance.

Effect of Fiscal Loss Compensation on Tax Avoidance
Our results show that fiscal loss compensation, with a negative regression coefficient of -0.008314, had no effect on tax avoidance. This means that fiscal loss compensation will decrease tax avoidance. If the company does not have compensation fiscal loss, it will increase tax avoidance. Data distribution showed that of eight samples that had fiscal loss compensation, there were six samples that had tax avoidance values above the average. Of 46 samples that did not have fiscal loss compensation, there were nine samples that had tax avoidance values below average. These results are consistent with Waluyo, Basri, and Rusli (2015), who stated that fiscal loss compensation had no effect on tax avoidance. This means that fiscal loss compensation will not make companies avoid their tax burdens,
because if fiscal losses had been encountered in the previous tax year, companies will still pay the tax if net profits are obtained the following year. This indicates that fiscal loss compensation does not fully relieve a company from paying taxes in order to avoid tax burden. Therefore, fiscal loss compensation has no significant influence with negative direction toward tax avoidance.

CONCLUSIONS

Based on descriptive statistical analysis, capital intensity and tax avoidance of food and beverage companies listed in the BEI from 2010-2015 had mean values that were above the standard deviation. This means that the sample data did not vary. Variable fiscal loss compensation had an average value that was below the standard deviation, which means that the sample data varied. Based on regression analysis of panel data, simultaneous capital intensity and fiscal loss compensation significantly influenced tax avoidance. Capital intensity had a partial positive effect on tax avoidance, whereas fiscal loss compensation had no effect on tax avoidance.

REFERENCES


