



Article history:

Received: 2018-07-04

Revised: 2018-09-05

Accepted: 2018-10-18

Amrie Firmansyah, Rizka Muliana

Department of Accounting,
Polytechnic of State Finance STAN
Bintaro Main Street 5th Sector,
Bintaro Jaya, South Tangerang,
Banten, 15222, Indonesia

✉ Corresponding Author:

Amrie Firmansyah:

Tel +62 816 788 664

E-mail: amrie.firmansyah@gmail.com



This is an open access
article under the CC-BY-SA license

Amrie Firmansyah (Indonesia), Rizka Muliana (Indonesia)

The Effect of Tax Avoidance and Tax Risk on Corporate Risk

Abstract

Tax avoidance could increase the corporate risk for several reasons. First, tax avoidance increases the uncertainty of future corporate tax payments, second, the tax avoidance rate could serve as a leading indicator of the company's investment risk. We examined tax avoidance and tax risk on corporate risk. Corporate risk is uncertainty about the future net cash flows of the company as well as a type of risk inherent in management's decision-making arrangements. The sample used in this study were non-financial companies listed on the Indonesia Stock Exchange (IDX). The study used the method of purposive sampling; selected corporate data amounted to 80 so that the sample in this study amounted to 240 firm-years. The method examination in this research used multiple regression analysis with panel data. We found that tax avoidance is not associated with corporate risk. This result indicated that the company that conducts tax avoidance is not related to corporate risk. Furthermore, tax risk is not associated with corporate risk. Thus, tax risk could not capture corporate risk because corporate external factors may cause it.

Keywords: External Factors; Stock Return Volatility; Tax

JEL Classification: C33, H26, G31

Citation: Firmansyah, A., & Muliana, R. (2018). The effect of tax avoidance and tax risk on corporate risk. *Jurnal Keuangan dan Perbankan*, 22(4), 643-656. <https://doi.org/10.26905/jkdp.v22i4.2237>

Abstrak

Penghindaran pajak dapat meningkatkan risiko perusahaan karena beberapa alasan. Pertama, penghindaran pajak meningkatkan ketidakpastian pembayaran pajak perusahaan di masa depan, kedua, tingkat penghindaran pajak dapat berfungsi sebagai indikator utama risiko investasi perusahaan. Kami melakukan pengujian penghindaran pajak dan risiko pajak terhadap risiko perusahaan. Risiko perusahaan adalah ketidakpastian tentang arus kas bersih perusahaan serta jenis risiko yang melekat dalam pengaturan pengambilan keputusan manajemen. Sampel yang digunakan dalam penelitian ini adalah perusahaan non-keuangan yang terdaftar di Bursa Efek Indonesia (BEI). Dengan menggunakan metode purposive sampling, data perusahaan terpilih berjumlah 80, sehingga sampel dalam penelitian ini berjumlah 240 firm-years. Metode yang digunakan dalam penelitian ini dengan menggunakan analisis regresi berganda dengan data panel. Kami menemukan bahwa penghindaran pajak tidak mempengaruhi risiko perusahaan. Hasil ini menunjukkan bahwa perusahaan yang melakukan penghindaran pajak tidak terkait dengan risiko perusahaan. Selanjutnya, risiko pajak tidak berpengaruh terhadap risiko perusahaan. Oleh karena itu, risiko pajak tidak dapat menangkap risiko perusahaan karena risiko pajak lebih banyak dipengaruhi oleh faktor eksternal perusahaan.

Kata Kunci: Faktor Eksternal; Volatilitas Return Saham; Pajak

Maximizing the firm value is a key goal for each company because firm value reflects the level of prosperity of shareholders. Fama & French (1995) argued that firm value could be reflected in the company's stock price which is a reflection of investment decisions, funding, and assets management. From the investor's point of view, firm value is often associated with stock market prices. Stock market prices are not only determined by the internal conditions of a company, but also the company external conditions such as economic conditions. A company in achieving the desired firm value is not possible regardless of risk.

According to Hanafi (2014), risk is an adverse event, or the likelihood of the results obtained deviates from the expected. The risk arises because there are conditions of uncertainty in the future so that it could be concluded that the risk is closely related to the condition of the inappropriateness itself. Risks could be categorized into 2 (two) groups, namely systematic risk and unsystematic risk (Husnan, 2005). Systematic risk is an ever-present risk and could not be eliminated through diversification. It is often referred to as market risk and could be regarded as an external risk because of factors causing ups and downs come from outside the company, such as economic conditions, socio-political conditions, and taxation policies. Meanwhile, the unsystematic risk could be eliminated by diversification as well as could be regarded as an internal risk because the change is influenced by the factors that exist within the company, such as market share, management ranks, and annual profit.

External corporate risks usually have the same impact on each sector. For example, based on the 2015 Indonesian Economic Report (Bank Indonesia, 2016), from 2011 to 2015, the revenues of public companies tended to decline. The economic slowdown experienced by Indonesia caused that situation. In this regard, the decline in external and domestic demand has led to a reduction in production and an impact on the decline in revenues of public

companies, especially commodity-based companies. Also, Indonesia's economic structure that still relies on commodities may encourage a general weakening in purchasing power if the commodity sector's performance deteriorates. As a result, the income from other sectors also declined.

Different from external corporate risk, the corporate internal risk usually only affects the company itself. The accounting scandal carried out by Toshiba management, which is one of the largest electronics companies in the world based in Tokyo, Japan (<https://ekonomi.kompas.com>) is one example of the risk caused by company management. Another example is the case of PT Bumi Resources Tbk manipulating information in financial statements to benefit certain parties (<http://www.neraca.co.id>). The disclosure of these cases increased the corporate risk and encouraged the company's stock price to fall.

Based on the indications that have been mentioned, the corporate internal and external risk are one of the barriers that could hinder the achievement of the company's main objectives, namely maximizing the firm value. The management must concern with the corporate risk must so that it should be managed or minimized. The main focus of this research is the corporate internal risk from now on referred to as corporate risk because the scope of the impact is only on the company itself. Hutchens & Rego (2015) argued that corporate risk is uncertainty about the future net cash flows of the company. Also, Rego & Wilson (2012) and Badertscher et al. (2013) argued that corporate risk is reflected in the volatility of stock returns is a type of risk inherent in management's decision-making arrangements. Research related to the factors that affect corporate risk is important to be discussed because the impact of corporate risk could hamper the company in maximizing future firm's value and firm's going concern.

This study highlight tax avoidance and tax risk as determinants of corporate risk. Guenther,

The Effect of Tax Avoidance and Tax Risk on Corporate Risk

Amrie Firmansyah & Rizka Muliana

Matsunaga, & Williams (2013, 2017), Drake, Lusch, & Stekelberg (2017) stated that tax avoidance is one of the factors affecting corporate risk. Corporate tax is an expense that must be borne by a company so that the management would attempt to minimize the tax expenses to generate greater net income. However, a company does not engage in taxable acts that are still within the framework of the provisions of tax laws and regulations to minimize the amount of tax payable (Chasbiandani & Martani, 2012). Furthermore, Guenther, Matsunaga, & Williams (2013) defined tax avoidance as the adoption of tax laws that reduce corporate income tax payments. Frank, Linch, & Rego (2010) had another view of tax avoidance as aggressive tax reporting, for example manipulating (decreasing) taxable income through tax planning that may or may not be considered tax avoidance.

On the other hand, tax avoidance could increase a corporate risk for several reasons. First, tax avoidance increases the uncertainty of future corporate tax payments, either through increased uncertainty about challenges arising from tax authorities, tax-save transactions, or enforcement of tax laws that provide tax benefits (Blouin, 2014). Second, the tax avoidance rate could serve as a leading indicator of the supported risk. For example, the tax avoidance rate undertaken by a country's taxpayers may be reflected by increased investment in countries that apply low tax rates to offset high investment risks in their respective countries. Third, tax avoidance measures could add to the complexity of financial statements and disclosures, thereby reducing transparency and increasing the uncertainty of future cash flows. Goh et al. (2016) stated that companies which undertake tax avoidance would obtain greater cash availability that could be used in production or investment activities thereby increasing future cash flows generated by the company. In other words, tax avoidance activities would increase cash-tax savings that have implications for increasing expected future cash flow. Also, there is

a reason that tax avoidance could not be attributed to corporate risk. Dyreng, Hanlon, & Maydew (2014) concluded that if tax avoidance is conducted only to take advantage of investments that have no potential legal problems with tax authorities or courts, such as local bond investments, tax avoidance is generally not accompanied by high tax payments in the future.

Meanwhile, Guenther et al., (2013, 2017), Assidi (2015), Hutchens & Rego (2015), Drake, Lusch, & Stekelberg (2017) stated that company's tax risk might also affect corporate risk. The company has tax risk because it develops policies in responding to tax regulations. The response is not always in line with what supposed to be. Tax risk is a potential loss that may occur in the future including contingency obligation and failure to obtain an appropriate favor. Therefore, tax risk is a gap between the tax outcome and expected initial tax driven by management actions or management activities (Guenther, Matsunaga, & Williams, 2013). Hutchens & Rego (2015) defined tax risks as all tax-related uncertainties that include corporate transactions, operations, financial reporting decisions, and corporate reputation. These uncertainties include uncertainty in the application of tax laws, the possibility of audits by tax authorities, financial accounting uncertainties for income tax, as well as the quality of accounting information as the basis for tax decisions. Tax risk may affect to company's going concern. The uncertainty risk source could be detected, so the company may organize a control system to prevent it. Rossignol (2010) argued that there are two types of tax risk. First, determining non-voluntary compliance on tax regulation. Second, ignoring favorable tax ruling that may significantly tackle disadvantage.

In Indonesia context, based on the previous literature, there is only one study in Indonesia which discussed tax risk (Abduh, Andreas, & Ratnawati, 2014). However, the study does not examine tax risk on corporate risk. The study examined tax risk on

tax avoidance and suggests that tax risk is negatively associated with tax avoidance. Thus, studies that examine the tax risks on corporate risk has never been conducted in Indonesia. Furthermore, several studies examined tax avoidance. Tarihoran (2016) and Adityamurni & Ghozali (2017) examined tax avoidance on firm value, and these studies suggested that tax avoidance is not associated with firm value. Purwanti (2014) examined tax avoidance on the cost of debt and proved that tax avoidance is negatively associated with the cost of debt. While Febriyanto & Firmansyah (2018) examined tax avoidance on the cost of equity, the study proved that tax avoidance is positively associated with the cost of equity.

The examinations of corporate risk were examined by several factors in the previous studies. Pangemanan (2013) proved that inflation and exchange rate are negatively associated with systematic risk, while the interest rate is positively associated with systematic risk. Meanwhile, Ferranti & Yunita (2015) concluded that inflation, interest rates, dividend payout ratios, and current ratios do not affect systematic risk. Furthermore, Deswira (2013) proved that liquidity does not affect the risk of stock investment, the capital structure and company size do not affect the risk of stock investment. Sarinauli, Sitorus, & Susanto (2015) proved that financial leverage, operating leverage, and liquidity do not affect stock beta. Research on tax avoidance has been conducted in Indonesia related to the cost of debt, firm value, time of the announcement of the company's annual financial statements, and other variables.

Based on the literature review conducted, It is essential to examine tax risk and tax avoidance on corporate risk for Indonesia data. This study also includes financial control variables leverage, size, pretax income, and book-to-market to eliminate the bias that may arise in the regression equation. The control variable is a variable that is made constant or fixed so that the influence of the independent

variable to the dependent variable is not influenced by other factors outside the factors studied (Sugiyono, 2016). Sidauruk & Pangestuti (2015) stated that financial leverage in the business sense refers to the use of financial resources by companies with fixed costs. Sidauruk & Pengestuti (2015) suggested that Debt to Equity Ratio has a positive impact on corporate risk. Size is considered as a control variable because size is a fundamental factor of corporate risk (Ben-Zion & Shalit, 1975). Size has a negative/opposite effect on corporate risk. The smaller the size of the company lead stock return volatility is greater (Pastor & Veronesi, 2003). Pretax income from company operations is included as a control variable to control the operation of the company (Hanlon, Rajgopal, & Shevlin, 2004). Pretax income has a positive effect on stock return volatility. The higher the pretax income, the higher the corporate risk. Book-to-market is included as a control variable to control the extent to which growth opportunities companies (Guenther, Matsunaga, & Williams, 2013). Book-to-market has the opposite relationship to stock return volatility. If the growth opportunities of the larger companies then the stock return volatility would be smaller.

HYPOTHESES DEVELOPMENT

According to Watts & Zimmerman (1990), principal and agent relationships are often determined by accounting numbers in financial statements. This condition triggers the agent to consider how the accounting could be used as a means to maximize his wealth which ultimately leads to agency problems. The agency problem arises when the agent acts to maximize its interests regardless of the principal's interests or act out of synch with the principal's wish (Godfrey et al., 2010). The agency problem could lead to agency costs. Godfrey et al. (2010) defined agency costs as the costs incurred by reducing the welfare of the principal because of the difference in importance between the principal and the agent. Agency costs consist of

The Effect of Tax Avoidance and Tax Risk on Corporate Risk

Amrie Firmansyah & Rizka Muliana

monitoring cost, bonding cost, and residual loss value (Jensen & Meckling, 1976). Agents as executors of the company's business activities have more important information about the company's condition than the principal or often referred to as information asymmetry. The existence of separation of ownership and control within the company becomes one of the advantages that enable the agent to manipulate the information in the financial statements to benefit the agent. For principals, it could be complicated to effectively control the actions of managers because they have little information.

Agency problems arise because management, as agents, intends to maximize its wealth rather than maximizing shareholder wealth as principal. Company policies that benefit agents more than principals would degrade the quality of information in the financial statements due to the obfuscation of information made by the agent to the principal. This situation would increase the uncertainty of future cash flows of the company. If the future cash flow of the company is increasingly uncertain, then the risk of the company would be higher. For example, agents would take accounting and taxation policies that could make the company's performance look good to gain incentives for its performance. On the other hand, the information obtained by the principals through the financial statements would be different from the facts. Actions taken by the agent would increase the uncertainty of future cash flows or in other words increase the risk of the company.

Guenther, Matsunaga, & Williams (2017) examined the tax policy associated with corporate risk. The tax policy in this study only focuses on tax avoidance. This study concluded that the low-level ETR tends to be more persistent and tax avoidance has a positive influence on corporate risk. Blouin (2014) stated that tax avoidance increases the uncertainty of future corporate tax payments. If the tax payment is a substantial component of the company's cash flow, it could lead to a change in the company's overall cash flows. Chasbiandani & Martani (2012)

stated that tax avoidance is an attempt by taxpayers (companies) to not engage in taxable acts or efforts that are still within the framework of the provisions of taxation legislation to minimize the amount of tax payable. Tax avoidance tends to take advantage of the weaknesses (loophole) of a country's taxation provisions but the tax avoidance of the contrary, i.e., violating those provisions. Desai & Dharmapala (2009) described tax avoidance with a value transfer scheme from the state to shareholders. Managers apply accounting methods and policies that could reduce the company's profit (taxable income) so that the tax expense borne by the company is not in a significant number. Decreasing taxable income is usually conducted by increasing the deductible cost of taxable income. However, in agency theory, the scheme is not in line with stakeholder expectations. Stakeholders, especially shareholders, view the scheme as an action that may increase the corporate risk. Tax avoidance may increase the complexity of the financial statements and its disclosure (the existence of information splitting made by management to stakeholders) thereby reducing transparency and improving the uncertainty of future cash flows. Also, if such tax avoidance is known to the tax authority and interpreted as illegal, the company would bear greater tax expenses as well as lawsuits which cause corporate risk in the future. Therefore, the hypothesis in this study, as follows

H₁: the tax avoidance is positively associated with corporate risk.

Tax risks are all tax-related uncertainties that include company transactions, operations, financial reporting decisions, and corporate reputation (Hutchens & Rego, 2015). These uncertainties include the uncertainty in the application of tax laws to company facts, the possibility of audits by the Tax Authority, the uncertainty of financial accounting for income tax, as well as the quality of accounting information as the basis of tax decisions. In con-

trast to the previous literature, by Guenther, Matsunaga, & Williams (2013) defined tax risk as uncertainty regarding future corporate tax payments. Tax risks are different from tax avoidance because tax risk reflects how a company could maintain its tax position over time, while tax avoidance is the adoption of tax laws that reduce corporate income tax payments (Guenther, Matsunaga, & Williams, 2013). The tax position is closely related to the number of tax payments made by a company. With the change of tax law and tax policy taken by management does not cover the possibility of payment of tax would change from time to time. Tax expense is considered to be managed as a considerable burden of nominal value and is a deduction of the net income of the company. Thus, if the tax position of an enterprise is increasingly uncertain, then the uncertainty of future net cash flows of the company (corporate risk) is also higher.

Guenther, Matsunaga, & Williams (2013) proved that tax risk positively affects corporate risk. Meanwhile, Hutchens & Rego (2015) examined tax risks as measured by discretionary book-tax differences and cash ETR volatility produced a consistently positive impact on corporate risk. Research on tax risk on corporate risk is also conducted by Assidi (2015) which used registered companies in France using the size of cash ETR volatility. The research suggests similar to the study undertaken by Hutchens & Rego (2015) that the tax risk has a significant positive effect on the company's risk. Payment of taxes from time to time may be subject to change for various reasons, such as changes in domestic and international tax laws or the extent to which taxation policies are taken by management expectations. If the company could not maintain its tax position, it would affect the company's net cash flow. Therefore, the second hypothesis of this research, as follows:

H₂: the tax risk is positively associated with corporate risk.

METHODS

The type of research used in this study is a quantitative method. The research was conducted by data processing and analyzing to get a conclusion on existing data. The analysis uses multiple linear regression model. This study uses the type of panel data because the sample data used is a combination of companies from various sectors throughout more than one year. The type of data used in this study is secondary data in the form of financial statements of companies listed on the Indonesia Stock Exchange (IDX) from 2013 to 2015 from the official website of IDX at <http://www.idx.co.id>. This study was conducted from February 2017 up to May 2017. This study does not use financial statements data for the year 2016 because at that time financial statements released by public companies have not completed yet. Also, financial statement data from 2009 to 2012 is also needed to support the measurement of variables that require data from previous periods. Financial statements data before 2009 are not completed so that we eliminate those.

The population in this study includes all companies listed on the IDX in the period 2013 to 2015. A sampling of the existing population is done by the method of purposive sampling (judgment sampling) that is choosing a sample not randomly with specific criteria. In this research, the sample company is a non-financial company that meets the following criteria. (1) The companies registered on IDX before January 1, 2009. This criterion aims to ensure the completeness of the data obtained to calculate the variables in this study because the calculation of tax risk variables requires data from year t-4. (2) The sample excludes companies in the financial sector and the property sector, real estate, and building construction. The reason is the financial sector companies have a different performance with other industries as well as the property sector, real estate, and building construction have special treatment in tax aspect that is subject to final tax. (3) The

The Effect of Tax Avoidance and Tax Risk on Corporate Risk

Amrie Firmansyah & Rizka Muliana

company uses the rupiah currency in its financial reporting. It aims to reduce research error due to the difference in currency value. (4) Companies have a positive pre-tax profit (pretax income) from year t-4 to year t. This criterion is used because companies with negative pretax income (losses) have no incentive to avoid taxes and corporate losses could distort the tax expenses reported in the financial statements and the basis of measurement using the Effective Tax Rate (ETR) base. (5) The company does not do stock split during the period 2013 to 2015. It aims to reduce the error of research because companies that do the stock split of their shares could cause the proxy calculation of the dependent variable to be biased due to a significant stock price decline from the previous period. (6) The Company has an annual financial report with complete elements of financial and information reports during the period 2009 to 2015.

The dependent variable in this study is the corporate risk. The proxies used in this study used a proxy used by Guenther, Matsunaga, & Williams (2013) as follows:

$STOCK_RET_VOL_{it}$: annual deviation standard from the monthly stock return of company i in year t

Where:

$$Stock\ Return = \frac{P_t - P_{t-1}}{P_{t-1}} \quad (1)$$

P_t : stock price in period t

P_{t-1} : stock price in period t-1

The Independent variables in this study are tax avoidance and tax risk. The tax avoidance proxy uses discretionary permanent differences (DTAX) as defined by Frank et al. (2009). The measurement equation as follows:

$$PERMDIFF = \alpha_0 + \alpha_1 INTANG + \alpha_2 UNCON + \alpha_3 MI + \alpha_4 CSTE + \alpha_5 \Delta NOL + \alpha_6 LAGPERM + \varepsilon \quad (2)$$

Where:

PERMDIFF : total book-tax difference [(income before tax-tax expenses) tax rate] less temporary book-tax difference [(deferred tax expense/tax rate)/lagged total assets]

INTANG : the amount of goodwill and other intangible assets divided by lagged total assets

UNCON : comprehensive income divided by lagged total assets

MI : comprehensive income attributed to non-controlling parties divided by lagged total assets

CSTE : current tax expense divided by lagged total assets

ΔNOL : change in net operating loss carryforwards divided by lagged total assets

LAGPERM : lagged PERMDIFF

Σ : residual value which is discretionary permanent differences (DTAX).

The model is estimated in its cross sectional for each year to gain residual value as discretionary permanent differences.

Also, in this study tax avoidance proxy also use Cash Effective Tax Rate (CETR) for the robustness. The selection of CETR is based on the motivation of managers to increase book income while reducing tax liability. This situation often occurs in companies which are influenced by the market reaction to book income so that managers would attempt to increase book income rather than lower it (Lee, Dobiyanski, & Minton, 2015). CETR describes the tax ratio paid per rupiah of income received (Cheng et al. 2012). The higher CETR suggests, the

smaller tax avoidance conducted by companies. CETR in this study follows proxy Cheng et al. (2012) and Lee, Dobiyski, & Minton (2015) as follows:

$$Cash\ ETR = \frac{Cash\ Tax\ Paid}{Pretax\ Income} \quad (3)$$

Meanwhile, the proxy of tax risk in this study using cash ETR volatility by Hutchens & Rego (2015). The use of cash ETR volatility is recommended by Hutchens & Rego (2015) because cash ETR volatility is more able to capture the various levels of tax risk dimension associated with corporate risk. Also, cash ETR volatility facilitates forecasting earnings after future taxes so that a better assessment of the corporate risk could be made. The measurements of cash ETR volatility, as follows:

$$CETR_VOL_{it} = \text{annual deviation standard of the company's cash ETR in year } t$$

Where:

$Cash\ ETR_i$ = the amount of cash tax payment during the last five years divided by pretax income over the last five years of the company

$$Cash\ ETR_i = \frac{\sum_{t=1}^N Cash\ Tax\ Paid_{it}}{\sum_{t=1}^N Pretax\ Income_{it}} \quad (4)$$

The control variables used in this research are financial leverage, firm size, pretax income, and book-to-market. Financial leverage uses the size of the debt to equity ratio (DER) which is total debt divided by total equity as proxy used by Sidauruk & Pengestuti (2015). Company size uses the proxy used by Pastor & Veronesi (2003) as measured by using natural log on assets. Pretax income is measured using pre-tax book profit divided by total assets of the previous year as proxy used by (Hanlon, Rajgopal, & Shevlin, 2004). Book-to-mar-

ket is measured using an equity book value ratio to the equity market value as proxy used by Guenther, Matsunaga, & Williams (2013).

The main research models in this study, as follows:

$$STOCK_RET_VOL_{it} = \alpha_0 + \alpha_1 TaxAvoid_{it} + \alpha_2 CETR_VOL_{it} + \alpha_3 DER_{it} + \alpha_4 Size_{it} + \alpha_5 PTBI_{it} + \alpha_6 BTM_{it} + \epsilon_{it} \quad (5)$$

Where:

- STOCK_RET_VOL_{it}: corporate risk i in year t
- Tax Avoidance_{it}: tax avoidance company i in year t
- CETR_VOL_{it}: corporate tax risk i in year t
- DER_{it}: financial leverage company i in year t
- Size_{it}: firm size i in year t
- PTBI_{it}: pretax income i in year t
- BTM_{it}: book-to-market on company i in year t
- ε_{it}: residual value of the regression equation

RESULTS

The selection of research samples using purposive sampling is presented in Table 1.

The number of selected samples is 80 companies within 3 (three) years from 2013 to 2015. Accumulation of three years causes the number of observations sampled in this study to 240 firm-years. The descriptive statistical analysis in this study is described by using the mean, maximum, minimum (minimum), and standard deviation (Std. Dev.). The summary of the results of descriptive statistics on the variables data in this study presented in Table 2.

Furthermore, the summary of the correlation test between variables in this study presented in Table 3.

The Effect of Tax Avoidance and Tax Risk on Corporate Risk

Amrie Firmansyah & Rizka Muliana

Based on the Table 3, there is no correlation between each other variables, so each value of proxies is different from others. Thus, all independent variables could be examined on the dependent variable.

The results of regression model selection tests (chow test, Lagrange multiplier test, Hausman test) suggest that the most appropriate regression model in this research is a random-effect model (REM). Furthermore, the coefficient of determination examination aims to measure how far the ability of the regression model in explaining the variation of

bound variables (Ghozali, 2013) which is represented by Adjusted R-Squared. It has a value of 0.14516 which means that the variation of corporate risk value could be explained by independent variable equal to 14.51%. The rest is explained by other factors outside the research model.

F test is used to test the research model's determination. Based on Table 4, the test results note that the value of Prob. (F-statistic) that is 0.0000000 smaller than the value of α (0.05), so the model could be used t-test.

Table 1. Selection Process of Research Samples

Criteria	Total	Measurements
Companies listed on the IDX as of December 31, 2016	535	Firms
Companies listed on IDX from 1 January 2009	(170)	Firms
Companies listed on IDX before January 1, 2009	365	Firms
Corporate financial sector	(63)	Firms
Company property sector, real estate, and building construction	(37)	Firms
Financial Statements use currencies other than rupiah	(50)	Firms
The Company has a positive pre-tax profit (pretax income) from year t-4 to year t	(104)	Firms
Elements and / or information in financial statement is incomplete	(17)	Firms
Companies that conduct a stock split	(14)	Firms
Total Sample	80	Firms
Year	3	Years
Total observation	240	Firm-Years

Source: Processed from www.idx.com

Table 2. Descriptive Statistics

	SRV	DTAX	CETR	CETRV	DER	SIZE	PTBI	BTM
Mean	0.107795	0.001725	0.412829	0.199080	1.045701	28.64414	0.174570	1.093612
Median	0.091196	0.017748	0.249776	0.075156	0.746992	28.58280	0.100948	0.607958
Maximum	0.537219	0.359423	9.318578	4.043012	7.439835	33.13405	11.46597	12.83638
Minimum	0.012433	-2.181859	0.000000	0.006404	0.000248	25.71653	0.001811	0.017100
Std. Dev.	0.069611	0.183560	0.822030	0.419293	0.980544	1.564770	0.742090	1.564175

Table 3. The Correlation Test

	SRV	DTAX	CETRV	DER	SIZE	PTBI	BTM
SRV	1.000000	0.022433	-0.018182	-0.090169	-0.137494	0.342803	0.045628
DTAX	0.022433	1.000000	-0.217269	0.008898	0.052015	0.064184	-0.170665
CETRV	-0.018182	-0.217269	1.000000	0.331162	-0.127446	-0.042444	0.276061
DER	-0.090169	0.008898	0.331162	1.000000	-0.070186	-0.112107	0.059171
SIZE	-0.137494	0.052015	-0.127446	-0.070186	1.000000	0.068436	-0.307749
PTBI	0.342803	0.064184	-0.042444	-0.112107	0.068436	1.000000	-0.079407
BTM	0.045628	-0.170665	0.276061	0.059171	-0.307749	-0.079407	1.000000

If the data are divided into small-size group companies and big-size group companies, the results as Table 5.

Furthermore, if the data are divided into low leverage group companies and high leverage group companies, the results as Table 6.

DISCUSSION

The Effect of Tax Avoidance on Corporate Risk

This study suggests that tax avoidance is not associated with the corporate risk. The result of this study indicates that the more intense the company doing tax avoidance measures would not trigger an

Table 4. Equation Model Regression Test Results

Variable	SRV			SRV		
	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.
DTAX	-0.00195	-0.08561	0.46595			
Cash ETR				-0.002616	-0.289438	0.38625
CETRV	-0.00416	-0.36555	0.3575	0.000630	0.032276	0.48715
DER	-0.00366	-0.69882	0.2427	-0.004117	-0.772775	0.2202
SIZE	-0.00779	-2.31157	0.01085 **	-0.007692	-2.290879	0.01145 **
PTBI	0.034974	6.432385	0 ***	0.034787	6.378761	0 ***
BTM	0.000277	0.081283	0.46765	0.000443	0.131584	0.4477
Constant	0.329189	3.355069	0.00045 ***	0.326835	3.346428	0.0005 ***
Adjusted R-squared	0.145167			0.144808		
F-statistic	7.764458			7.744909		
Prob. (F-statistic)	0.000000			0.000000		

Table 5. The Regression Test Results Into Small-Size and Big Size Groups

Variable	Small-Size Groups			Big-Size Groups		
	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.
DTAX	-0.01254	-0.39345	0.347363	0.131032	2.844605	0.00264 ***
CETRV	-0.00617	-0.391	0.348265	-0.00479	-0.27041	0.39367
DER	-0.00745	-1.00972	0.157395	-0.00074	-0.11584	0.453993
SIZE	-0.00251	-0.27528	0.391802	-0.01124	-2.51115	0.006724 ***
PTBI	-0.05874	-0.64818	0.259092	0.032038	7.842658	0 ***
BTM	-0.0005	-0.12239	0.451403	0.013633	1.686644	0.047216 ***
Constant	0.199118	0.806613	0.210792	0.422693	3.116133	0.001162 ***
Adjusted R-squared	-0.03497			0.409883		

Table 6. The Regression Test Results Into Low Leverage and High Leverage Groups

Variable	Low Leverage Groups			High Leverage Groups		
	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.
DTAX	-0.02044	-0.37228	0.355191	0.000548	0.021003	0.491641
CETRV	0.001292	0.051256	0.479606	-0.02463	-1.51642	0.066103 *
DER	0.000721	0.020332	0.491907	0.000203	0.032007	0.487262
SIZE	-0.00743	-1.72931	0.043243 **	-0.00461	-1.17751	0.120733
PTBI	0.034076	5.390436	0 ***	-0.06972	-1.23496	0.109704
BTM	0.006212	0.564445	0.286785	-0.00088	-0.275	0.391909
Constant	0.313084	2.516311	0.013263 **	0.247113	2.181334	0.03123 **
Adjusted R-squared	0.193631			0.000206		

The Effect of Tax Avoidance and Tax Risk on Corporate Risk

Amrie Firmansyah & Rizka Muliana

increased risk of the company. The result of this study is confirmed by examining the second model in which tax avoidance is represented by cash tax payment (CETR) which suggests that it does not affect corporate risk. This result is in line with Goh et al. (2016) stating that companies conducting tax avoidance actions would obtain greater cash availability that could be used in production or investment activities thus increasing future cash flows generated by the company. In other words, tax avoidance measures would increase cash-tax savings that have implications for increased expected future cash flow. In this case, management seeks to prioritize the interests of investors, which is to improve the future net cash flow of the company. The higher the value of future cash flows of the company, the number of dividends distributed to investors would also increase.

The result of this study differs from research conducted by Guenther, Matsunaga, & Williams (2017) which resulted in tax avoidance having a positive effect on corporate risk despite using the same proxy model Frank, Lynch, & Rego (2009). Guenther, Matsunaga, & Williams (2017) suggested that generally, tax avoidance conducted by US companies is related to corporate risk. Characteristics of companies in the US could be categorized as large companies because based on the result of examining this research by dividing the data into characteristics of small-sized and large-sized companies, it suggests that tax avoidance that could reflect the corporate risk is conducted by large companies. Meanwhile, tax avoidance carried out by small-sized companies is not related to corporate risk. It could be considered that tax avoidance carried out by large companies is closely related to government revenues. The Tax Authority may assume that if a large company carries out, tax avoidance could result in a potential reduction in state revenue. Large companies could be the target of the Tax Authority if they are indicated to conduct tax avoidance. Therefore, they could be the object of a tax audit. They must fulfill the consequences such as lawsuits and compensa-

tion due to the amount of tax paid is not appropriate. Furthermore, small companies that do tax avoidance are not prioritized as the examination by the Tax Authority, so that if the companies carry out tax avoidance, it is not too risky for the companies in the future.

Furthermore, if the companies are divided into two large leverage groups and small leverage groups, there is no difference in the corporate risk due to the tax avoidance conducted by the companies. It is possible that the monitoring carried out by creditors related to corporate tax compliance is low considering. Creditors only focus on the amount of obligation the companies pay to them.

The Effect of Tax Risk on Corporate Risk

This study suggests that tax risk is not associated with corporate risk. The result of this study is different from research conducted by Guenther, Matsunaga, & Williams (2013), Hutchens & Rego (2015), and Assidi (2015). This difference in results may cause the data used in the study uses developed country data and more extended periods, so that differences in country conditions may lead to different results. This condition could be considered that the tax risk is influenced by several factors both arising from the corporate externals and internals. This result suggests that, In Indonesia context, the external factors of the company are more dominant in shaping tax uncertainty such as economic, political and product attack conditions from abroad because they have an impact on the Government in making policies related to taxation. Meanwhile, in the implementation of taxation, the company only responds to taxation policies set by the Government by fulfilling its obligations in paying taxes. This applies to companies in both large-size companies and small-size companies as well as companies with low leverage groups and high leverage groups. It proves that tax risk in Indonesia as a developing country is mostly dominated by external factors of the company instead of internal factors of the company.

Tax risk reflects how a company could maintain its tax position from time to time, while tax avoidance is the adoption of tax regulations that reduce corporate income tax payments (Guenther, Matsunaga, & Williams, 2013). The tax position related to the number of tax payments may experience changes with various reasons, such as changes in tax laws both domestically and internationally or changes in tax policies. Thus, tax uncertainty of a company in Indonesia is not caused predominantly by the internal company. However, it is influenced by external factors of the company, so that tax risk could not be used as a basis in capturing corporate risk.

CONCLUSION AND SUGGESTIONS

Conclusion

This research suggests that tax avoidance is not associated with the corporate risk. However, if the data are divided into characteristics of small-sized and large-sized companies, it suggests that tax avoidance that could reflect the corporate risk is conducted by large companies. There is no different result both of large leverage groups and small leverage groups with the tax avoidance activities on corporate risk. Furthermore, tax risk is not associated with corporate risk. Thus, tax risk could not capture corporate risk because it may be caused by corporate external factors. It applies both large-size companies and small-size companies as well as companies with low leverage groups and high leverage groups.

Suggestions

Limitations in this study cover only three years (2013 to 2015) as it is difficult to obtain complete financial statements over a period. This study required financial statements from 2009 to 2015 to meet the tax risk variable for three years. The company's financial statements listed on the Indo-

nesia Stock Exchange in 2008 below are difficult to obtain so that in the end would be able to reduce the number of samples.

For future research is expected to accommodate longer periods to gain more representative results. For the dependent variables, the risk of a company may use the stock futures volatility proportion, the average cost of equity capital, or other proxies. Furthermore, tax avoidance variables may use other proxies as well as tax risk.

Based on the results of this study, companies that are incentive or not to avoid taxes would not affect the increase or decrease corporate risk. However, now and in the next few years, the taxation sector is the backbone sector for state revenues, so that Financial Services Authority could improve its role not only as a supervisor of the financial services industry but should be an initiator in supporting the goals of the Indonesia Tax Authority. One of the Financial Services Authority's vision is to make the financial services industry become the pillar of the national economy. Therefore, the real policy recommendation that could be made by Financial Services Authority is to create a Memorandum of Understanding (MoU) with the Indonesia Tax Authority to improve the implementation good corporate governance in line with internationally exemplary and sector-focused practices and the size and complexity of open companies.

Factors influencing the change in corporate tax positions include changes in domestic and international tax laws and the extent to which tax policies are taken by management. Changes in tax law are external factors that may be difficult to anticipate changes. Meanwhile, the taxation policy taken by management is an internal factor that should be managed so that the tax position is maintained in a secure position. Management must consider all possibilities that may occur, one of which probability examination conducted by the tax authorities, in determining taxation policies or accounting policies so as not to become a constraint in the future.

REFERENCES

- Abduh, A., Andreas, & Ratnawati, V. (2014). Pengaruh kebutuhan koordinasi, ketidakpastian, dan risiko pajak terhadap tax avoidance. *Jurnal Akuntansi (Media Riset Akuntansi & Keuangan)*, 3(1), 16-28. Retrieved from: <https://ejournal.unri.ac.id/index.php/JA/article/view/2532>
- Adityamurni, E., Ghozali, I. (2017). Pengaruh penghindaran pajak dan biaya agensi terhadap nilai perusahaan. *Diponegoro Journal of Accounting*, 6(3): 1-12. Retrieved from: <https://ejournal3.undip.ac.id/index.php/accounting/article/view/18228>
- Assidi, S. (2015). Tax risk and stock return volatility: A case study for French Firms. *International Journal of Business Continuity and Risk Management*, 6(2). <https://doi.org/10.1504/IJBCRM.2015.075778>
- Badertscher, B., Katz, S., & Rego, S. (2013). The separation of ownership and control and its impact on corporate tax avoidance. *Journal of Accounting and Economics*, 56(2), 228-250. <https://doi.org/10.1016/j.jacceco.2013.08.005>
- Bank Indonesia. (2016). *Laporan Perekonomian Indonesia Tahun 2015*. Jakarta: Bank Indonesia.
- Ben-Zion, U., & Shalit, S. S. (1975). Size, leverage, and dividend record as determinants of equity risk. *The Journal of Finance*, 30(4), 1015-1026. <https://doi.org/10.2307/2326720>
- Blouin, J. (2014). Defining and measuring tax planning aggressiveness. *National Tax Journal*, 67(4), 875-900.
- Chasbiandani, T., & Martani, D. (2012). Pengaruh tax avoidance jangka panjang terhadap nilai perusahaan. *Jurnal Program Pasca Sarjana Ilmu Akuntansi Fakultas Ekonomi Universitas Indonesia*, 1-26.
- Cheng, C. S. A., Huang, H. H., Li, Y., & Stanfield, J. (2012). The effect of hedge fund activism on corporate tax avoidance. *The Accounting Review*, 87(5), 1493-1526. <https://doi.org/10.2308/accr-50195>
- Desai, M. A., Dharmapala, D. (2009). Corporate tax avoidance and firm value. *The review of Economics and Statistics*, 91(3): 537-546. <https://doi.org/10.3386/w11241>
- Deswira, T. (2013). Pengaruh likuiditas, struktur modal dan ukuran perusahaan terhadap risiko investasi saham yang terdaftar di Jakarta Islamic Index. *Jurnal Akuntansi*, 1(2), 1-25. <http://ejournal.unp.ac.id/students/index.php/akt/article/view/623>
- Direktorat Jenderal Pajak. (2016). *Laporan Tahunan 2015*. Jakarta: Direktorat Jenderal Pajak.
- Drake, K. D., Lusch, S. J., & Stekelberg, J. (2017). Does tax risk affect investor valuation of tax avoidance? *Journal of Accounting, Auditing & Finance*, 1-26. <https://doi.org/10.1177/0148558X17692674>
- Dyreng, S., Hanlon, M., & Maydew, E. (2008). Long-run corporate tax avoidance. *The Accounting Review*, 83(1), 61-82. <https://doi.org/10.2308/accr.2008.83.1.61>
- Ernst & Young. (2014). Tax risk and controversy survey. <http://www.ey.com/gl/en/services/tax/tax-policy-and-controversy/ey-2014-tax-risk-controversy-survey-01-summary> accessed on March 13th, 2017.
- Fama, E. F., & French, K. R. (1995). Size and book-to-market factors in earnings and returns. *The Journal of Finance* 50(1), 131-155. <https://doi.org/10.1111/j.1540-6261.1995.tb05169.x>
- Febriyanto, A. S., & Firmansyah, A. (2018). The effects of tax avoidance, accrual earnings management, real earnings management, and capital intensity on the cost of equity. *Jurnal Dinamika Akuntansi*, 10(1), 40-50. <https://doi.org/10.15294/jda.v10i1.12976>
- Ferranti, D., Yunita, I. (2015). Analisis inflasi, tingkat suku bunga, *dividen payout ratio* dan *current ratio* terhadap risiko sistematis. *Trikonomika*, 14(1), 47-56.
- Frank, M. M., Lynch, L. J., & Rego, S. O. (2009). Tax reporting aggressiveness and its relation to aggressive financial reporting. *The Accounting Review*, 84(2), 467-496. Retrieved from: <http://www.jstor.org/stable/27802660>
- Ghozali, I. (2013). *Analisis Multivariat dan Ekonometrika: Teori, Konsep, dan Aplikasi dengan Eviews 8*. Semarang: Badan Penerbit - UNDIP.
- Godfrey, J., Hodgson, A., Tarca, A., Hamilton, J., & Holmes, S. (2010). *Accounting Theory 7th Edition*. Milton: John Wiley & Sons, Inc.
- Goh, B. W., Lee, J., Lim, C. Y., & Shevlin, T. (2016). The effect of corporate tax avoidance on the cost of equity. *The Accounting Review*, 91(6), 1647-1670. <https://doi.org/10.2308/accr-51432>

- Guenther, D. A., Matsunaga, S. A., & Williams, B. M. (2013). Tax avoidance, tax aggressiveness, tax risk, and firm risk. *Unpublished paper*. Available at <https://business.illinois.edu/accountancy/wp-content/uploads/sites/12/2014/10/Tax-2013-Guenther.pdf>
- Guenther, D. A., Matsunaga, S. A., & Williams, B. M. (2017). Is tax avoidance related to firm risk? *The Accounting Review*, 92(1), 115-136. <https://doi.org/10.2308/accr-51408>
- Gujarati, D. N. (2012). *Basic Econometric*. Edisi Kelima. Jakarta: Salemba Empat.
- Hanafi, M. M. (2014). *Manajemen Risiko*. Tangerang Selatan: Universitas Terbuka.
- Hanlon, M., Rajgopal, S., & Shevlin, T. (2004). Large sample evidence on the relation between stock options and risk-taking. *Working paper University of Washington*.
- Husnan, S. (2005). *Dasar-dasar Teori Portofolio dan Analisis Sekuritas*. Edisi Kelima. Yogyakarta: AMP YKPN.
- Hutchens, M., & Rego, S. O. (2015). Does greater tax risk lead to increased firm risk?. *Financial Accounting E-Journal*. <http://dx.doi.org/10.2139/ssrn.2186564>.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3(4), 305-360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Lee, B. B., Dobiyski, A., & Minton, S. (2015). Theories and Empirical Proxies for Corporate Tax Avoidance. *Journal of Applied Business and Economics*, 17(3), 21-34.
- Pangemanan, V. (2013). Inflasi, nilai tukar, suku bunga terhadap risiko sistematis pada perusahaan sub-sektor *food and beverage* di BEI. *Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, 1(3), 189-196. Retrieved from: <https://ejournal.unsrat.ac.id/index.php/emba/article/view/1993>
- Pastor, L., & Veronesi, P. (2003). Stock valuation and learning about profitability. *Journal of Finance*, 58(5), 1749-1790. Retrieved from: <http://www.jstor.org/stable/3648173>
- Purwanti, N. (2014). Pengaruh penghindaran pajak terhadap biaya hutang pasca perubahan tariff pajak badan pada perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia. *Jurnal Akuntansi Indonesia*, 3(2), 113-128. DOI: <http://dx.doi.org/10.30659/jai.3.2.113-128>
- Rego, S. O., & Wilson, R. (2012). Equity risk incentives and corporate tax aggressiveness. *Journal of Accounting Research*, 50(3), 775-810. <https://doi.org/10.1111/j.1475-679X.2012.00438.x>
- Rossignol, J. L. (2010). Taxation and overall responsibility for the company. *Review of Management & Avenir*, 33, 56-167.
- Sarinauli, Sitorus, F., & Susanto, D. A. (2015). *Financial Leverage, operating leverage, liquidity dan pengaruhnya terhadap beta saham*. *Jurnal Ilmiah Buletin Ekonomi*, 19 (2): 47-58.
- Sidauruk, L., & Pangeluti, I. R. D. (2015). Pengaruh liquidity, leverage, profitability, firm size, dan sales growth terhadap risiko saham (Perusahaan manufaktur yang listing di BEI Tahun 2010-2013). *Diponegoro Journal of Management*, 4(4), 1-13.
- Sugiyono. (2016). *Metode Penelitian Kuantitatif, Kualitatif, dan R & D*. Bandung: Alfabeta.
- Watts, R. L., & Zimmerman, J. L. (1990). Positive accounting theory: A ten-year perspective. *The Accounting Review*, 65(1), 131-156. Retrieved from: <http://www.jstor.org/stable/247880>
- Tarihoran, A. (2016). Pengaruh penghindaran pajak dan leverage terhadap nilai perusahaan dengan transparansi perusahaan sebagai variabel moderasi. *Jurnal Wira Ekonomi Mikroskil*, 6(2), 149-164.