Level of Firm Ownership and Tax Planning Practices: Evidence from Indonesia

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Abstract
The aim of this study is to examine whether the level of firm ownership (i.e., institutional, foreign, family, and government) is associated with firm’s tax planning practices. Using a sample of public companies in the IDX during the period of 2014 to 2019, and by utilizing the least square dummy variable (LSDV) regression model, this study found that as the level of family ownership, foreign ownership, and government ownership increases, companies will be less likely to engage in tax planning practices which are measured by the effective tax rate. On the other hand, the level of institutional ownership shows no significant relation to tax planning practices. The results of this study provide insight into the relationship between the level of public firm ownerships in Indonesia and tax planning practices.

Keywords
Firm Ownerships, Tax Planning Practices, Indonesia

1. Introduction
A firm’s main objective is to maximize profit through cost efficiency. On the other hand, the income tax that arises from a firm’s activity reduces the firm’s optimum profit; consequently, managers are motivated to reduce the burden through tax planning practices (Gaaya et al., 2017). Recent evidence showed that there was an increase in the number of firms around the world that engage in tax avoidance practices to minimize income tax payment (Lanis & Richardson, 2011) despite the risky actions the company is considered to take (Armstrong et al., 2015). Chen et al. (2010) affirmed that for maximize profit, many national and multinational firms decreased their tax burdens through tax avoidance. Tax avoidance is an effort to minimize company income tax expense by utilizing loopholes or grey areas in taxation regulations (Atwood et al., 2012; Richardson et al., 2016).
One way for a firm to avoid tax payments is to increase after-tax-profit through
tax savings; consequently, the firm’s performance will also be favorable in the
eyes of shareholders (Scholes et al., 2015). According to Khurana & Moser (2013),
this reason is in line with the traditional view that tax avoidance practices will
maximize firm value because it entails a transfer of wealth from the state to the
shareholders of a firm; therefore, such practices will provide firms with more
free cash flow either in the short-run or in the long-run (Chen et al., 2014; Desai
& Dharmapala, 2009; Khurana & Moser, 2013; Tang, 2019). Thus, corporate tax
avoidance contributes to the increase in shareholder value as long as the mar-
ginal benefits are more significant than the marginal cost (Desai & Dharmapala,
2009).

Even though tax avoidance looks very interesting for most companies, some
companies are reluctant to undertake this practice. The main reason is that, de-
spite the benefits, there are also costs associated with it. Costs of engaging in tax
avoidance practices might include tax-experts fees, reputation risk, litigation risk,
and penalty risk imposed by the tax authority (Badertscher et al., 2013; Hanlon
& Heitzman, 2010; Hasan et al., 2014).

Given that tax avoidance practices are prevalent around the world, several prior
studies have been conducted to examine the reason for companies avoiding tax-
es. Some of them are the home country’s tax system (Atwood et al., 2012), mar-
ket competition (Cai & Liu, 2009), and the company’s weak internal control (Bau-
er, 2016). Therefore, Hanlon & Heitzman (2010) recommend that ownership struc-
tures might be important factors that could influence tax avoidance practices. Fur-
thermore, Hanlon & Heitzman (2010) suggest conducting more research concern-
ing this issue.

As a response to the recommendation, several studies have been conducted to
investigate the effect of different ownership structures on firm tax planning prac-
tices. Annuar et al. (2015) studied the effect of ownership structures (i.e., foreign
ownership, government ownership, and family ownership) of Malaysian corpo-
rations listed on the Malaysian Stock Exchange. The study found that foreign, gov-
ernment, and family ownerships are associated with company tax avoidance prac-
tices. A study of firms that are listed on the Shenzhen and Shanghai Stock Ex-
change in China by Ying et al. (2017) revealed that state ownership is positively
associated with firms’ tax avoidance practices. In contrast, institutional owner-
ship harms company’s tax avoidance. In Finland, Steijvers & Niskanen (2014) found
that private family-owned firms are less engaged in tax avoidance practices com-
pared to non-family-owned firms. In the international setting, Hasan et al. (2016)
discovered that foreign institutional ownership is negatively associated with tax
avoidance practices, particularly within corporations across 32 countries in the
world.

Several researchers have also conducted studies in Indonesia regarding tax plan-
ning practices using listed companies on the Indonesia Stock Exchange (e.g., Rusydi
& Martani, 2014; Sandy & Lukviarman, 2015; Saputra et al., 2017; Yuniashih et al.,
Those studies showed mixed results on the effect of firms’ ownership structures toward tax avoidance practices. Therefore, the purpose of this study is to re-examine whether firm’s ownership structures are associated with tax avoidance practices, particularly, among the manufacturing companies that are listed on the Indonesia Stock Exchange.

The rest of this paper is organized as follows. Section 2 discusses the related literature review and hypothesis development. Section 3 provides the methodology to examine the effect of the firm’s concentrated ownership and tax planning practices. Section 4 presents the findings of this study and the discussion. Finally, the last section of this study highlights the significant conclusions and implications.

2. Literature Review and Hypotheses Development

2.1. Tax Planning Practices

There is strong evidence that tax planning practices are widespread among public companies around the world. For example, Cai & Liu (2009) found that almost two hundred thousand companies in China are involved in tax avoidance practices. In Britain, Sikka & Hampton (2005) argued that the great decline in tax revenues each year can be attributed to companies’ tax planning practices. In the U.S. nearly 25% of more than two thousand public companies were able to avoid taxes of at least one fifth of their income before tax for almost a decade (Dyreng et al., 2008). In line with these findings, The United Nations Conference on Trade and Development (UNCTAD) also reported that multinational companies have a big share in undermining tax revenues in developing countries. Moreover, according to the said study, developing countries lose more than 100 million U.S. dollar annually due to tax planning by multinational companies (MNEs). Tax avoidance also has caused financial sectors to lose up to 300 million U.S. dollars. MNEs on average contribute 10% to the revenue of developing countries. Especially for developing countries on the African continent, the tax contribution of MNEs can reach 14% of state revenues (UNCTAD, 2015).

Studies related to tax planning practices have been done for at least three decades and still received much attention up to the present. Since firm income taxes represent a significant expense to the company as well as its shareholders, tax planning has become an interesting strategy for companies. In fact, “tax planning is promoted as a natural, inevitable, and a desirable pursuit” (Sikka & Hampton, 2015: p. 330). Further, Desai & Dharmapala (2009) also argued that according to the traditional theory, tax planning practices increase firm value if the expected marginal benefit exceeds the expected marginal cost. In line with this argument, Khurana & Moser (2013) emphasized that a dollar saved through tax planning practices is an immediate extra dollar available for the firm and its shareholders in the current period.

According to Dyreng et al. (2010), the level of tax avoidance that is undertaken by a company is strongly influenced by the role of the managers (e.g., the CEOs).
While CEOs do not directly develop tax avoidance strategies, they could give some stimulus related to tax avoidance practices at a certain level, and then establish the overall objective of the tax department (McGuire et al., 2014). Therefore, Robinson et al. (2010) argued that top managers must possess the expertise to determine whether various tax-planning opportunities can be implemented effectively. As an example, Sikka & Hampton (2005) find that management seek the strategy from accountancy firms that sell tax avoidance schemes that enable them to avoid sales, payroll, and also corporate taxes.

2.2. Firm Ownerships

Generally, firm ownership can be categorized into two broad forms: concentrated and dispersed. In countries that implement civil law (e.g., Germany, France, and among emerging markets), concentrated ownership structures are dominant. Since poor protection toward the investors afforded by the civil law is substituted by the internal control system derived from the larger shareholders (Lonkani, 2018; Sari et al., 2017; Siregar & Utama, 2008). Furthermore, Al-Matari et al. (2014) and Lonkani (2018) stated that concentrated ownership is the form of ownership in which large shareholders exist and are able to monitor a manager’s activities in order to ensure the maximization of shareholder’s value.

In a concentrated ownership, most of the shares are owned by several individuals or groups. In an emerging market such as Indonesia, firm’s ownership structures have the tendency to be concentrated; consequently, it produces controlling and minority shareholders. Hence, companies with a concentrated ownership are more dominant compared to other companies in decision making process (La Porta et al., 1999). According to Claessens et al. (2000), since majority of firms in East Asian region are typified as concentrated in ownership and also belong to business groups, they might trigger agency problem (i.e., controlling shareholders align with managers to expropriate minority shareholders). Therefore, the firm’s owner has the tendency to influence the managers in performing certain practices (Chen et al., 2010).

According to the theory of separation of ownership and control, Fama & Jensen (1983) argued that when equity-ownership and corporate decision-making are concentrated in just a small number of decision-makers, the firm owner tends to be more risk-averse and thus less motivated to invest in risky projects. Because tax avoidance might be viewed as one of the risky practices that can impose significant costs to the firm (Hanlon & Heitzman, 2010; Rego & Wilson, 2012), these studies suggest that firms with higher concentrated ownership and control tolerate minimum risk. Therefore, they are less engaged in tax planning practices than firms with less concentrated ownership and control (Badertscher et al., 2013).

According to Siagian (2011), the firm’s concentrated ownerships can be classified into four. They are business group, institutional ownership, government ownership, and foreign ownership. Further, Al-Najjar & Kilincarslan (2016) classified firm ownership structures into family ownership, foreign ownership, institutional
ownership, and state ownership. This study, on the other hand, employs institutional ownership, foreign ownership, family ownership, and government ownership as firm’s concentrated ownership structures in the context of public-manufacturing firms listed on the Indonesia Stock Exchange (IDX).

2.3. The Effect of Firm Ownerships on Tax Planning Practices

Family Ownership and Tax Planning Practices

Companies in Asia are distinct from those in America and Europe. In contrast to the dispersed ownership structure of most U.S. firms, Asian firms largely exhibit the distorting influence of controlling family shareholders (Yoo & Koh, 2014). A study conducted by Claessens et al. (2000), found that in nine East Asian countries, over two-thirds of the firms are controlled by families or individuals. In Malaysia, about 70% of the companies are family-controlled firms (Amran & Ahmad, 2009).

A recent study in Indonesia conducted by Global Business Guide (2016) showed that family-owned business account for approximately 40% of market capitalization and have considerable influence across a wide-range of key industries including property (i.e., 91% of market share), agriculture (i.e., 74% of market share), energy (i.e., 65% of market share), and consumer goods (i.e., 45% of market share). Furthermore, 44% of Indonesian family businesses have one dominant owner. A further 22% have siblings as owners, and around 10% have ownership shared between cousins or an extended family. These aforementioned figures are based on a 2018 survey conducted by Price Waterhouse Coopers (PWC, 2018).

In general, family-owned firms are characterized by the founding family’s concentrated ownership. The founding family members, either individual or as a member of a family group either by blood or marriage, are found to be involved in firms’ management either as top executives or as directors, or have a certain level of equity ownership in the company (Baek & Kim, 2015; Bambang & Hermawan, 2013; Sacristán-Navarro et al., 2015; Villalonga & Amit, 2006).

Further, family-owned firms are mainly focused on maintaining their reputation, therefore they tend to hinder any decision that will jeopardize their image and reputation (Berrone et al., 2012; Landry et al., 2013). In relation to this, when family members own majority shares, they tend to be less involved in tax planning practices in order to avoid the costs associated with the tax compliance, hence
Several studies have been conducted to investigate the effect of family ownership on tax planning activities, but the results are still indecisive. Landry et al. (2013) examined Canadian firms from 2004 to 2008 and found that family-owned firms are less involved in tax planning activities compared to firms owned by non-family members. Similar to the said finding, when using S&P 1500 index from 1996 to 2000, Chen et al. (2010) discovered that family-owned firms exhibit less tax planning activities than other public firms. In contrast to those studies, Annuar et al. (2015) argued that family-owned firms could be associated with firm’s tax planning activities, especially among companies that on Bursa Malaysia for the period of 2009 to 2013. However, Yuniasih et al. (2013) found that family ownership firms have no influence on tax planning activities when they examined firms listed on the IDX from 2008 to 2010. Therefore, the first hypothesis of this study is:

**H1: Family ownership is related to tax planning practices.**

**Foreign Ownership and Tax Planning Practices**

In emerging markets such as Indonesia, where the demand for source of fund is increasing from time to time, foreign investment has become an important channel to raise capital. According to Chang et al. (2013), foreign institutional investors play an important role in the market. They spend considerable time analyzing the fundamentals of their investment before allocating substantial capital into emerging markets. Therefore, Hasan et al. (2016) and Jusoh (2015) insisted that the increment of foreign investors has provided sources of financing for companies and become an important factor in influencing the economic growth.

Aside from the source of capital, foreign investors also bring several benefits to the investee company. Jusoh (2015) and Salihu et al. (2015) argued that foreign investors provided managerial expertise to the investee company because they are endowed with technical, productivity, efficiency, and superior financial resources. They also bring influence on their investee firms’ decision-making process since they have greater international business experience that enable them to effectively deal with cost and uncertainties (Hasan et al., 2016; Jiang & Yamada, 2011). Therefore, foreign ownership in emerging economies might improve firm performance and enhance its efficiency.

The argument on the motivating factors of foreign-owned firms to engage in tax planning practices in the host countries is inconclusive. Salihu et al. (2015) stated that multinational firms have structured their business in a way to avoid taxes in every jurisdiction where they operated. One of the motivating factors why foreign investors desire to invest in most of developing countries is to take advantage of tax incentives granted by the host countries (Salihu et al., 2015). On the other hand, Khanna & Palepu (2000) argued that multinational corporations are more focused on the reputation of parent companies or countries of origin, thus they prefer to protect their behavior and reputation from doing tax plan-
ning practices. In relation, DeBacker et al. (2015) claimed that foreign-owned companies are unlikely to engage in tax planning practices, particularly when their owners are coming from uncorrupted countries.

Prior empirical studies showed mixed results on the relationship between foreign ownership and tax planning practices. DeBacker et al. (2015) examined more than 25 thousand foreign-controlled firms in the U.S. from the year 1996 to 2011 and found negative results. In line with the finding, using 32 sample countries from 2000 to 2008, Hasan et al. (2016) also discovered that foreign-owned companies from high quality corporate governance and highly tax morality countries are negatively associated with the level of tax planning practices.

Contradict to those findings, Egger et al. (2010), after examining domestic and foreign-owned European manufacturing firms between the period of 1999 to 2004, found that foreign-owned companies have positive relationship with tax planning practices, especially in high-tax host countries. While in Southeast Asia, Annuar et al. (2015) discovered that publicly listed firms with foreign ownership could be associated with tax avoidance practices among Malaysian listed companies during 2009 to 2013. Lastly, in Indonesia, Saputra et al. (2017) confirmed that as the percentage of foreign ownership in a company increase, firm tax planning activities decrease. In other words, firm with larger foreign ownership engage in lesser tax planning practices. Another study in Indonesia by Rusydi & Martani (2014), on the other hand, found no influence on the effect of foreign ownership and tax avoidance. Both studies covered all manufacturing firms listed on IDX for the period of 2010 to 2014. Therefore, the second hypothesis of this study is:

**H2:** Foreign ownership is related to tax planning practices.

**Government Ownership and Tax Planning Practices**

Government ownership in a company has existed throughout history but has varied greatly in scale. Empirical literature has shown that up to this present time government ownership in companies remains common in both emerging markets and developed countries around the globe (Liu, 2018). Furthermore, according to The Economist (2012), government ownership in both developing and developed countries has been extending their global reach in the recent years.

Before the Asian financial crisis in 1997-1998, corporate shares in Indonesia had shown that more than 10% were owned by the government through state-owned enterprise. After one decade, in the late 2000, government ownership had increased to around 14% (Carney & Hamilton-Hart, 2015). In the year 2000s, corporations’ share with family ownership declined as government ownership became increasingly important. Therefore, in 2003, the Indonesian government regulated Act No.19 of 2003 regarding State-Owned Enterprises. According to the Act, state-owned enterprise is a business entity whose capital is largely owned by the government through direct investments coming from state assets that were
set aside.

Furthermore, according to Kamal (2010) and Munawarah et al. (2017), there are two types of state-owned companies in Indonesia, general company (Perum) and limited liability company (Persero). Perum has the task to run social purposes, where the whole capital is owned by the government. Therefore, it is not listed on stock exchange. On the other hand, Persero is a business-oriented company where the main objective is to maximize profit. Furthermore, Persero is divided into two categories, public listed and non-public listed companies, where the shares of the former are traded in IDX (Kamal, 2010; Munawarah et al., 2017). Currently, most of the state-owned companies are engaged in financial and construction sectors.

Although government ownership in a company could bring good influence, most of the scholars argued their effectiveness and efficiency when engaging in corporate decision-making process. It is argued that in general, conflicting objectives (i.e., commercial goals and social obligation), agency issues in terms of political interference, and lack of transparency are considered the main problems of government-owned companies around the world (He et al., 2016; Kamal, 2010; Nhan & Ha, 2016; Vintilă & Gherghina, 2015; Wu, 2011). Those problems, often, have made government-owned entities different from the non-government owned entities.

According to Ying et al. (2017), when the government holds majority shareholdings in a firm, it significantly influences firm managerial decisions by exercising its political power. Also, because majority of government-owned companies are associated with operating and monitoring inefficiency, it raised the issue of agency cost. Furthermore, Kim & Zhang (2016) argued that politically-connected firms are more aggressive in avoiding tax because of lower costs of tax enforcement, better information regarding tax law and enforcement changes, lower capital market pressure for transparency, and greater risk-taking tendencies induced by political connections. In contrast, Chan et al. (2013) argued that as their political reasons, managers from firms that are controlled by the government tend to hinder tax avoidance practices to protect tax revenues that government earned.

Prior studies showed indecisive conclusions in relation to the influence of government ownership toward tax planning practices. Mahenthrian & Kasipillai (2012) discovered that government ownership is one of the several determinants of tax avoidance practices measured by lower effective tax rate. In the study, they focused on 345 firms listed from 2007 and 2008. Consistent to such finding, Kim & Zhang (2016) uncovered that political-linked firms are more aggressive in tax avoidance practices than non-political-linked firms.

In contrast to the above mentioned, a study by Zeng (2010) employing more than 750 of China’s listed companies for ten-year period from 1998 to 2008, discovered that firms with larger government ownership tend to engage in less tax avoidance practices. This is because the management wants to attain respectable
reputation from the government by increasing tax payment in order for them to be promoted in their political career. Another study conducted by Chan et al. (2013) also found that companies that are controlled by the government engage in minimum tax avoidance practices compared to their counterparts. Their study examined non-financial firms listed on Chinese stock exchanges during the period of 2003 to 2009. While in Indonesia, Rusydi & Martani (2014) could not find the evidence that government ownership structure affects firms’ tax avoidance practices. Therefore, the third hypothesis of this study is:

**H3: Government ownership is related to tax planning practices.**

**Institutional Ownership and Tax Planning Practices**

Institutional ownership of a firm has risen dramatically in the last three decades. According to Borochin & Yang (2016), over 65% of the average firm in the world is owned by institutional equity investors. That study was based on 2010’s Thomson Reuters database. In line with that, Karpavicius & Yu (2017) also found that the average institutional ownership of U.S. industrial firms has increased to 400% during 1980 to 2009. Similar figures also happened in the global capital market and other countries as presented by several researchers (e.g., Çelik & Isaksson, 2014; Dang et al., 2018; Faias & Ferreira, 2017; Jacob & Lukose, 2018; Yeung, 2012). In the Indonesian context, Pasopati (2015) reported that the percentage of share ownership of institutional investors listed in the IDX until the end of March 2015 is still quite dominant at 73.14%. The figure showed an increase from year to year; for example, 65.44% in 2004 and 69.11% in 2008 (Shinta & Ahmar, 2011).

Institutional ownership covers a wide range of investors including financial institutions (e.g., banks, investment banks, insurance companies, mutual funds, pension funds, securities companies, wealth management products, financial companies, trust companies) (Siregar & Utama, 2008; Ying et al., 2017). There are several benefits of institutional investors in relation to the corporate decisions making compared to other types of ownership structures. Institutional investors contribute to the development of capital market by creating the need for efficient transactions, good risk evaluation, and good corporate governance system (De-la-hoz & Pombo, 2016). According to Chen et al. (2008) and Siregar & Utama (2008), when shares of institutional-owned firm rise, institutional investors will have a strong interest and ability to influence, supervise and guide the management activity and policy, and even discipline managers to ensure that the firm’s investment strategy is consistent with the objective of maximizing long-term value, rather than meeting short-term earnings goals (Khurana & Moser, 2013). Furthermore, their monitoring role as institutions drive the firm’s management actions to make beneficial decisions that will enhance the company reputation in the future (Bushee, 1998; Chang et al., 2013; Khan et al., 2017).

Studies regarding the effect of institutional ownership on tax planning practices have been conducted previously by several researchers. Khurana & Moser (2013) study from 1995 to 2008 found that firms with higher long-term institu-
tional shareholder’s concentration are less participative in aggressive tax planning practices. In Indonesia, after manufacturing companies from 2011 to 2014 were examined, Saputra et al. (2017) found evidence that when institutional ownership of a firm increase, the level of tax planning practices decreases. On the other hand, another study by Sandy & Lukviarman (2015) among manufacturing firms listed on IDX from 2011 to 2013 discovered that institutional ownership has no significant effect on tax planning practices. Therefore, the fourth hypothesis of this study is:

**H4: Institutional ownership is related to tax planning practices.**

### 3. Methodology

#### 3.1. Research Design

This study introduces four dependent variables (i.e., family ownership, FAM; foreign ownership, FOR; government ownership, GOV; and institutional ownership, INS), an independent variable (i.e., effective tax rate, ETR), which is the proxy for the firm’s tax planning practices, and four control variables (i.e., inventory intensity, INV; leverage, LEV; financial performance, ROA; and firm size, SIZE). The four hypotheses were tested using Least Square Dummy Variable (LSDV) regression model. The data were analyzed using STATA v.17.

#### 3.2. Sample Selection and Data Gathering

The sample in this study covered all companies listed on IDX from 2014 to 2019 with firm-ownership data available. Firm-ownership data is gathered from company’s annual report, under the share capital section. Whereas data related to tax planning and control variables (all are financial data) are obtained from Thomson Reuters Eikon database. The study’s purposive sampling method as presented in Table 1.

Out of 3300 firm-year data available on firm ownerships, 616 firm-year are eliminated since provide incomplete financial data needed. Further, following McGuire, Wang, & Wilson (2014), this study eliminates 569 firm-year with negative income before tax.

**Table 1.** The procedure of sample selection.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Firm-Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesian public companies with firm ownerships data available</td>
<td>3300</td>
</tr>
<tr>
<td>Less: incomplete data related to variables used in this study</td>
<td>(616)</td>
</tr>
<tr>
<td>Less: negative income before tax</td>
<td>(569)</td>
</tr>
<tr>
<td>Less: ETR value less than zero and greater than one</td>
<td>(192)</td>
</tr>
<tr>
<td>Total number of observations</td>
<td>1923</td>
</tr>
</tbody>
</table>

Source: author’s compilation.
income before tax because the focus of this study is only on firm-year during which tax planning is likely to be a priority. Lastly, consistent with prior literatures, this study also eliminates 192 ETR values that are less than zero and greater than one to avoid possible problems in the estimation of the research model (e.g., Chen et al., 2010; Khuong et al., 2020; McGuire et al., 2014; Richardson et al., 2016).

3.3. Dependent, Independent, and Control Variables

This study employs Effective Tax Rate (ETR) as a proxy of firms’ tax planning practices. According to Richardson et al. (2016), ETR measures a firm’s ability to reduce its income tax expenses compared with its pre-tax accounting income, and it shows the relative tax burden across firm. Since ETR is an inverse proxy of firm’s tax planning practice (a lower ETR value reflects a lower tax planning practices) (Gupta & Newberry, 1997; Khuong et al., 2020; Olsen et al., 2016; Richardson et al., 2016), therefore, according to Richardson et al. (2016), it should be transformed by multiplying −1 with the value of ETR to align with the increasing measure of firm’s tax planning practices. Several prior research have utilized ETR measurement as a proxy of tax avoidance in their studies (e.g., Annuar et al., 2015; Chen et al., 2010; Desai & Dharmapala, 2006; Dyreng et al., 2008; Gupta & Newberry, 1997; McGuire et al., 2014; Rego & Wilson, 2012; Richardson et al., 2016).

Independent variables of this study are firm’s concentrated ownerships that consist of Family Ownership (FAM), Foreign Ownership (FOR), Government Ownership (GOV), and Institutional Ownership (INS). In measuring the firm’s concentrated ownerships, this study follows several prior researchers (e.g., Alzoubi, 2016; Annuar et al., 2015; Khurana & Moser, 2013).

According to prior studies, several independent factors might also affect a firm’s tax planning practices beside the variables that are being observed. To control their influence on the firm’s tax planning practices, this study treats them as control variables. Control variables in this study includes firm’s size (SIZE) proxied by year-end total assets, firm’s financial performance proxied by Return on Assets (ROA), and firm’s financial solvency, proxied by Leverage (LEV). This study also includes control for year effects and industrial sector effects. Badertscher et al. (2013) argued that firms which have higher LEV tend to be less engaged in tax avoidance practices because of the benefits they received from debt financing (i.e., higher leverage will increase interest expense, therefore reduce income tax). Prior studies argued that firms with higher financial performance (i.e., higher ROA) are less engaged in tax avoidance practices (Olsen et al., 2016; Robinson et al., 2012). Lastly, regarding the SIZE, Rego (2003) argued that in nature, larger companies can significantly minimize their cost of tax because they are capable of attaining economies of scale.

3.4. Research Model and Variables Measurement

The following econometrical model is used to test the hypotheses:
where:

- $TP_{it}$ is tax planning practices of a firm $i$ in year $t$. TP is proxied by ETR. ETR is calculated as total income tax expense divided by pre-tax income (Gallemore et al., 2014; Richardson et al., 2016; Salihu et al., 2015).
- $FAM_{it}$ is family ownership of firm $i$ in year $t$. FAM is measured by the cumulative percentage of family-owned common stock (Alzoubi, 2016).
- $FOR_{it}$ is foreign ownership of firm $i$ in year $t$. FOR is measured by the cumulative percentage of shares owned by foreign investors (Alzoubi, 2016; Annuar et al., 2015; Khurana & Moser, 2013).
- $GOV_{it}$ is government ownership of firm $i$ in year $t$. GOV is measured by the cumulative percentage of shares owned by government and state owned enterprise (Annuar et al., 2015).
- $INS_{it}$ is institutional ownership of firm $i$ in year $t$. INS is measured by the cumulative percentage of shares owned by domestic institutional investors (Alzoubi, 2016).
- $SIZE_{it}$ is the size (proxied by total assets) of the firm $i$ in year $t$. SIZE is measured by the natural logarithm of total assets (Aldamen et al., 2012; Armstrong et al., 2015; Dyreng et al., 2010; Khurana & Moser, 2013; Olsen et al., 2016; Robinson et al., 2012; Wilson, 2009; Ying et al., 2017).
- $ROA_{it}$ is the financial performance of firm $i$ in year $t$. ROA is pre-tax income scaled by total assets (Olsen et al., 2016; Robinson et al., 2012).
- $LEV_{it}$ is leverage (financial solvency) of firm $i$ in year $t$. LEV is calculated by the ratio of total long-term debt scaled by total assets (Aldamen et al., 2012; Dyreng et al., 2010; Robinson et al., 2012).
- $Year_{it}$ is dummy variable, 1 for each year.
- $Sector_{it}$ is dummy variable, 1 for each sector.
- $\varepsilon_{it}$ is the error term.

4. Results and Discussion

4.1. Classical Assumption Test

Heteroskedasticity test and multicollinearity test were conducted prior to the hypothesis testing. Heteroskedasticity test is intended to assess whether there is an inequality of variance from the residuals for all observations of each independent variable in the linear regression model. This study utilizes Breusch-Pagan/Cook-Weisberg test in STATA to indicate the presence of heteroskedasticity. The result shows that the variances were not constant; hence, there is heteroskedasticity problem. Nevertheless, the problem of heteroskedasticity was controlled by using robust standard error.

Multicollinearity in linear regression generally occurs when there are high correlations between two or more independent variables, or, in other words, one independent variable can be used to predict another independent variable. The value
of Variance Inflation Factors (VIF) and tolerance (1/VIF) are two indicators that are often used by researchers to conclude the occurrence of intercorrelation of independent variables. If the VIF value is less than 10 and/or the tolerance value is more than 0.1, it can be concluded that there is no multicollinearity problem. Therefore, as showed in Table 2, the possibility of a multicollinearity problem was not detected in this study since all the tolerance (1/VIF) values are greater than 0.1 and VIF values are less than 10 (Bataineh, 2021).

Table 3 shows the pairwise correlation matrix of all the variables. The correlations between all independent variables do not exceeding 0.8; therefore, there is no multicollinearity problem found in this study (Bataineh, 2021).

Table 2. Multicollinearity test.

<table>
<thead>
<tr>
<th>Model</th>
<th>1/VIF</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAM</td>
<td>0.738</td>
<td>1.356</td>
</tr>
<tr>
<td>FOR</td>
<td>0.471</td>
<td>2.125</td>
</tr>
<tr>
<td>GOV</td>
<td>0.658</td>
<td>1.521</td>
</tr>
<tr>
<td>INS</td>
<td>0.427</td>
<td>2.344</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.770</td>
<td>1.298</td>
</tr>
<tr>
<td>ROA</td>
<td>0.861</td>
<td>1.161</td>
</tr>
<tr>
<td>LEV</td>
<td>0.919</td>
<td>1.088</td>
</tr>
<tr>
<td>Mean VIF</td>
<td></td>
<td>1.556</td>
</tr>
</tbody>
</table>

Source: author’s compilation.

Table 3. Pairwise correlations.

<table>
<thead>
<tr>
<th>Variables</th>
<th>TP</th>
<th>FAM</th>
<th>FOR</th>
<th>GOV</th>
<th>INS</th>
<th>SIZE</th>
<th>ROA</th>
<th>LEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FAM</td>
<td>−0.036</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FOR</td>
<td>−0.055*</td>
<td>−0.126*</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GOV</td>
<td>−0.012</td>
<td>−0.068*</td>
<td>−0.148*</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INS</td>
<td>0.052*</td>
<td>−0.249*</td>
<td>−0.542*</td>
<td>−0.293*</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>0.050*</td>
<td>−0.136*</td>
<td>0.104*</td>
<td>0.259*</td>
<td>−0.155*</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>0.153*</td>
<td>0.006</td>
<td>0.109*</td>
<td>−0.057*</td>
<td>0.003</td>
<td>−0.062*</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>−0.076*</td>
<td>−0.039</td>
<td>0.015</td>
<td>0.067*</td>
<td>−0.025</td>
<td>0.127*</td>
<td>−0.055*</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Notes: n = 1923. TP, is tax planning practices, measured by effective tax rate (ETR); FAM, family ownership; FOR, foreign ownership; GOV, government ownership; INS, institution ownership; SIZE, firm size; ROA, firm financial performance; LEV, firm financial solvency. Correlation significant at ***, p < 0.01, **, p < 0.05, *, p < 0.1. Source: author’s compilation.
4.2. Descriptive Statistics

Table 4 presents the summary of the descriptive statistics of all variables employed in this study. The average ETR paid by a public company during the year 2014-2019 is 25.80%, with a standard deviation of 15.80%. This average tax rate is slightly above the corporate statutory tax rate of 25%. Institutional ownership (INS) showed an average of 31.53% which is the highest among the four ownership structures. It means that during the 2014 to 2019, firm with institutional ownership dominated the listed companies in stock exchange. In contrast, family ownership (FAM) was the lowest in average (3.34%). While, foreign ownership (FOR) and government ownership (GOV) fall in between, with an average of 13.18% and 5.00% of the total shares respectively.

Firm size (SIZE) has an average value of more than 3998 billion Rupiahs. Further, firm’s profitability as represented by ROA showed 8.10% of total assets. The firm’s leverage denoted by LEV showed that on average, public companies had 5.34% total long-term debt to total assets.

4.3. Empirical Results of Hypotheses Testing

The summary of the empirical results for the hypothesis testing is presented in Table 5. Family ownership (FAM) shows a negative relation on tax planning practices. This finding supports H1, which means as family ownership increases, tax planning practices decrease. This finding is supported by Landry et al. (2013) when examined Canadian firms from 2004 to 2008 and found that family-owned firms are less involved in tax planning activities compared to firms owned by non-family members. Similar to the said finding, when using S&P 1500 index from 1996 to 2000, Chen et al. (2010) discovered that family-owned firms exhibit less tax planning activities than other public firms. Family-owned firms are mainly focused on maintaining their reputation, therefore, they tend to hinder any

Table 4. Descriptive statistics.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Obs.</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP</td>
<td>1923</td>
<td>-0.258</td>
<td>0.158</td>
<td>-0.986</td>
<td>0.000</td>
</tr>
<tr>
<td>FAM</td>
<td>1923</td>
<td>3.335</td>
<td>13.894</td>
<td>0.000</td>
<td>99.930</td>
</tr>
<tr>
<td>FOR</td>
<td>1923</td>
<td>13.181</td>
<td>25.175</td>
<td>0.000</td>
<td>99.000</td>
</tr>
<tr>
<td>GOV</td>
<td>1923</td>
<td>5.006</td>
<td>17.664</td>
<td>0.000</td>
<td>99.980</td>
</tr>
<tr>
<td>INS</td>
<td>1923</td>
<td>31.534</td>
<td>30.470</td>
<td>0.000</td>
<td>99.700</td>
</tr>
<tr>
<td>SIZE</td>
<td>1923</td>
<td>29.017</td>
<td>1.836</td>
<td>22.418</td>
<td>34.887</td>
</tr>
<tr>
<td>ROA</td>
<td>1923</td>
<td>0.081</td>
<td>0.089</td>
<td>-0.000</td>
<td>0.730</td>
</tr>
<tr>
<td>LEV</td>
<td>1923</td>
<td>0.534</td>
<td>0.374</td>
<td>0.006</td>
<td>9.424</td>
</tr>
</tbody>
</table>

Notes: TP, tax planning practices, measured by ETR. FAM, family ownership; FOR, foreign ownership; GOV, government ownership; INS, institution ownership, SIZE, firm size; ROA, firm financial performance; LEV, firm financial solvency. Source: author’s compilation.
Table 5. Regression results.

<table>
<thead>
<tr>
<th></th>
<th>Coef.</th>
<th>Std. Err.</th>
<th>t-value</th>
<th>p-value</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP</td>
<td>FAM</td>
<td>−0.00065</td>
<td>0.00030</td>
<td>−2.15</td>
<td>0.032**</td>
</tr>
<tr>
<td></td>
<td>FOR</td>
<td>−0.00045</td>
<td>0.00017</td>
<td>−2.63</td>
<td>0.008***</td>
</tr>
<tr>
<td></td>
<td>GOV</td>
<td>−0.00036</td>
<td>0.00022</td>
<td>−1.65</td>
<td>0.0007</td>
</tr>
<tr>
<td></td>
<td>INS</td>
<td>−0.00005</td>
<td>0.00016</td>
<td>−0.32</td>
<td>0.749</td>
</tr>
<tr>
<td></td>
<td>SIZE</td>
<td>0.00057</td>
<td>0.00193</td>
<td>0.30</td>
<td>0.00321</td>
</tr>
<tr>
<td></td>
<td>ROA</td>
<td>0.42357</td>
<td>0.03933</td>
<td>10.77</td>
<td>0.000***</td>
</tr>
<tr>
<td></td>
<td>LEV</td>
<td>−0.04667</td>
<td>0.01104</td>
<td>−4.23</td>
<td>0.000***</td>
</tr>
</tbody>
</table>

Year dummy: Yes Yes Yes Yes Yes
Sector dummy: Yes Yes Yes Yes Yes
Constant: −0.33139 0.05840 −5.67 0.000*** −0.44592 −0.21686

Mean dependent var: −0.258
SD dependent var: 0.158
R-squared: 0.203
Number of obs.: 1923
F-test: 18.094
Prob > F: 0.000
Akaike crit. (AIC): −2041.443
Bayesian crit. (BIC): −1924.649

Notes: TP, tax planning proxied by ETR = total income tax expense divided by pre-tax income, multiplied by -1; FAM, family ownership = the cumulative percentage of family-owned common stock; FOR, foreign ownership = the cumulative percentage of shares owned by foreign investors; GOV, government ownership = the cumulative percentage of shares owned by government and state owned enterprise; INS, institution ownership = the cumulative percentage of shares owned by domestic institutional investors; SIZE, firm size = natural logarithm of total assets; ROA, firm financial performance = pre-tax income scaled by total assets; LEV, firm financial solvency = total long-term debt scaled by total assets. *** p < 0.01, ** p < 0.05, * p < 0.1. Source: Author's Compilation.

In relation to this, when family members own majority of the shares, they tend to be less involved in tax planning practices in order to avoid the costs associated with it, hence keeping their family reputation (Chen et al., 2010).

Foreign ownership (FOR) has a negative relation on tax planning practices. This result shows that as the percentage of foreign ownership increases, the firm’s tax planning practices decrease; therefore, H2 is supported. This finding is in line with DeBacker et al. (2015) that found negative result when examined more than 25 thousand foreign-controlled firms in the U.S. from the year 1996 to 2011. It can
be argued that multinational corporations are more focused on the reputation of parent companies or countries of origin, thus they prefer to protect their behavior and reputation from doing tax planning practices (Khanna & Palepu, 2000). In addition, DeBacker et al. (2015) claimed that foreign-owned companies are unlikely to engage in tax planning practices, particularly when their owners are coming from less corrupt countries.

Regarding the government ownership (GOV), this study found that it has a negative relation on tax planning practices, hence H3 is supported, meaning that government ownership (GOV) is related with tax planning practices. A study by Zeng (2010) discovered that firms with larger government ownership tend to engage in less tax avoidance practices. The study was conducted on more than 750 of China’s listed companies for ten-year period from 1998 to 2008. Another study conducted by Chan et al. (2013) also found that companies that are controlled by the government engage in minimum tax avoidance practices compared to their counterparts. Their study examined non-financial firms listed on Chinese stock exchanges during the period of 2003 to 2009. Based on the results of this study, it could be argued that as their political reasons, managers from government controlled firms, are less likely to engage in tax avoidance practices in order to protect tax revenues that government earned (Chan et al., 2013).

Lastly, institutional ownership (INS) has no significant effect on tax planning. This finding does not support H4. It is contradicted with the findings of Khurana & Moser (2013) and Saputra et al. (2017) that institutional ownership is negatively associated with tax planning practices. Nevertheless, this study supports the finding of Sandy & Lukviarman (2015) which found that among manufacturing firms listed on IDX from 2011 to 2013, institutional ownership has no significant relation on tax planning practices. Even though tax planning practices “does not necessarily imply that firms are engaging in anything improper” (Dyreng et al., 2008: p. 62), it seems that there is no incentive for institutional-owned companies to engage in tax planning practices.

Among the three control variables, ROA is found to be positively related to tax planning. This finding is consistent with prior studies (e.g., Gaaya et al., 2017). It is argued that companies with higher profit have more incentives to engage in tax planning practices in order to minimize their tax payments (Gaaya et al., 2017; Lanis & Richardson, 2013; Olsen et al., 2016; Robinson et al., 2012). While LEV is found negatively related to tax planning. This finding is in line with Badertscher et al. (2013) that argued firms with higher leverage tend to be less engaged in tax planning practices because of the benefits they received from debt financing (i.e., higher leverage will increase interest expense, therefore, reduce income tax). On the other hand, there is no statistically significant relation between SIZE and tax planning practices.

5. Conclusion

The aim of this study is to investigate whether the level of firm’s ownership (i.e.,
institutional, foreign, family, and government) is associated with tax planning practices among the public companies in Indonesia. The empirical findings, based on 1923 firm-year observations, show that family ownership, foreign ownership, and government ownership negatively affect company tax planning practices, in which as the level of ownership rises, tax planning practices decrease. This study contributes to the body of knowledge, particularly in relation to the influence of firm’s concentrated ownership and tax planning practices among public companies in Indonesia.

This study utilizes Effective Tax Rate (ETR) as the only proxy of tax planning practices. However, besides ETR, there are also other proxies of tax avoidance practices such as cash-effective tax rate and book-tax gap which can be considered by future studies. Since the actual data on companies that engage in tax avoidance practices in Indonesia are not available to the public, thus, the tax avoidance or tax planning measure in this study is based on the financial statement data. Consequently, the results of this study should be interpreted with caution (Richardson et al., 2016), since the accuracy of accounting-based tax planning measures (e.g., effective tax rate, cash-effective tax rate, book-tax gap) are questioned by the extant literature (Hanlon & Heitzman, 2010; Richardson et al., 2016). Nevertheless, this should not discourage future studies to employ those measurements if it can be properly justified.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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