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The Effect of Foreign Institutional Ownership on Corporate Tax Avoidance: International Evidence

Abstract: We find that foreign institutional investors (FIIs) reduce their investee firms' tax avoidance. We provide evidence that the effect is driven by the institutional distance between FIIs' home countries/regions and host countries/regions. Specifically, we find that the effect is driven by the influence of FIIs from countries/regions with high-quality institutions (i.e., common law, high government effectiveness, and high regulatory quality) on investee firms located in countries/regions with low-quality institutions. Furthermore, we show that the effect is concentrated on FIIs with little experience in the investee countries/regions or FIIs with stronger monitoring incentives. Finally, we find that FIIs are more likely to vote against management if the firm has a higher level of tax avoidance.

JEL classification: G23, G32, H26, M41

Keywords: Institutional Distance; Foreign Institutional Ownership; Tax Avoidance

1. Introduction

With financial globalization, foreign institutional investors (FIIs) have become increasingly important financing sources worldwide. According to the International Monetary Fund (IMF), total investment in equity assets by institutional investors around the world has risen more than sevenfold since 1990 to around U.S. \$100 trillion in 2015. The rapid growth of cross-border institutional investment has spurred considerable attention to the roles that FIIs play in their investee firms. Emerging literature finds that, through either direct interventions or indirect supply-demand threats, FIIs significantly influence their investee firms' corporate decisions (e.g., Ferreira et al., 2010; Aggarwal et al., 2011; Fang et al., 2015; Luong et al. 2017; Tsang et al., 2019). This paper adds to this line of research by examining whether FIIs affect their investee firms' tax avoidance, an important corporate decision that has received considerable attention from regulators and policymakers internationally.

FIIs generally come from countries with different institutions. *Institutional distance theory* implies that because of institutional differences between FIIs and their investee firms, FIIs incur additional relational costs, which include costs of monitoring, opportunistic behavior of local managers, and lack of trust of local managers (e.g., Buckley & Casson, 1998; Kostova, 1999; Mezas, 2002; Xu & Shenkar, 2002; Gaur & Lu, 2007). The tax literature demonstrates that tax avoidance activities are associated with information asymmetry and managerial opportunistic behavior. For example, Balakrishnan et al. (2019) argue that tax avoidance increases financial and organizational complexity, which in turn hinders investors from understanding the firm's operations. In addition, managers are more likely to mask and hide tax-avoiding transactions and provide opaque financial reports to avoid being audited by tax authorities (Kim et al., 2011; Balakrishnan et al., 2019). Survey evidence shows that financial reports are the predominant information resources for outside investors (Gassen & Schwedler, 2010; Chen et al., 2018). Desai and Dharmapala (2006) posit that

there is a positive feedback effect between corporate tax avoidance and managerial rent diversion. Thus, FIIs would face higher relational costs if their investee firms engage in more tax avoidance activities.

Institutional distance also causes unfamiliarity costs for FIIs (Mezias, 2002; Gaur & Lu, 2007). Unfamiliarity costs arise from a lack of knowledge of the host environment (Caves, 1971). For example, FIIs might lack understanding of the host country's regulatory settings, including those related to tax avoidance such as tax regulations (e.g., Leuz et al., 2008; Bell et al., 2012; Baik et al., 2013). In addition, in a highly uncertain environment, foreignness is associated with a higher likelihood of scrutiny by local governments (Mezias, 2002). Furthermore, foreigners are at a disadvantage in international corporate litigation once getting sued (Bhattacharya et al., 2007). In fact, corporate tax avoidance activities have faced increasing government and media scrutiny as well as litigations in recent years (e.g., Hanlon & Slemrod, 2009; Graham et al., 2014; Dyreng et al., 2016). A 2014 Ernst & Young (EY) survey finds that intense media scrutiny has driven significant concerns about tax-related reputation risks, and tax audits have become more aggressive in recent years (EY, 2014). Therefore, FIIs would incur higher unfamiliarity costs if their investee firms engage in more tax avoidance activities.

Anecdotal evidence shows that foreign institutional investors are concerned about tax planning at the companies they invest in. An article in *Financial Times* November 2, 2014, notes that "Although (tax) avoidance can fuel short-term profitability, investors fear this advantage may not be sustainable and could lead to reputational and commercial risks with customers, governments and regulators."¹ Kieran Quinn, Chairman of the Local Authority Pension Fund Forum in the United Kingdom, pointed out that "many existing financial practices around secrecy and taxation are not sustainable and no longer meet institutional governance expectations." (*Financial Times*, 2014)

¹ <https://www.ft.com/content/e56ca00c-6010-11e4-98e6-00144feabdc0>

Beyond their incentive, FIIs also have the ability to influence their investee firms' tax decisions. For instance, FIIs can voice their preferences by voting (Shleifer & Vishny, 1986; Burkart et al., 1997; Kahn & Winton, 1998). They can also exert governance by exiting an investment (Admati & Pfleiderer, 2009; Edmans, 2009; Edmans et al., 2013). Anecdotally, Nordea Investment Management, the biggest Nordic fund house, gave examples of their intervention means, including raising tax-related concerns with a corporate board, filing a motion at an annual general meeting, and exiting from an investment as a last resort (*Financial Times*, 2014). Furthermore, although FIIs generally hold a small proportion of shares, they could have a significant impact on corporate decision-making. For example, an investment fund called *Atticus* from the United States with just 1% of Barclays Bank's (UK) shares issued a public letter to call on Barclays to drop its bid for ABN Amro, which made its shares jumped over 3% on the prospect of investor opposition (*Reuters*, 2007). Academic literature also documents FIIs' significant influence in corporate decisions, including cross-border mergers and acquisitions (Ferreira et al., 2010), corporate governance (Aggarwal et al., 2011), global accounting comparability (Fang et al., 2015), auditor choice (Kim et al., 2019), and voluntary disclosure (Tsang et al., 2019).

Using a sample of 84,172 firm-year observations across 30 countries/regions from 2000 to 2016, we find that FIIs reduce their investee firms' corporate tax avoidance significantly. The result is also economically significant. Specifically, the coefficient estimate of FIIs translates into corporate tax avoidance decreasing by, on average, 0.26 percentage points (a 4% decrease in relative terms based on the mean value of tax avoidance) when foreign institutional ownership increases by one standard deviation in our sample. Given our sample's mean value of pretax income of US\$110 million, this decrease in tax avoidance equates to an increase of US\$0.3 million in tax expenses for an average investee firm in our sample.

It is possible that FIIs choose firms with lower tax avoidance to invest in, rather than that FIIs affect corporate tax avoidance through their interventions or threats after investment. To mitigate this endogeneity concern, we conduct two different sets of tests. First, we perform a difference-in-differences analysis by exploiting China's legal reform, the Qualified Foreign Institutional Investor program, as a natural experiment. Second, following Ferreira et al. (2010), we implement a two-stage least squares model using the Morgan Stanley Capital International Index as an instrumental variable for FIIs. The results from both sets of tests indicate that the direction of the effect is from FIIs to corporate tax avoidance.

In this paper, we hypothesize that the effect of FIIs on corporate tax avoidance results from institutional distance between home countries and host countries. To explore this interpretation, we separate both FIIs and investee firms into subgroups according to their institutional backgrounds and then conduct subsample analyses. Consistent with our institutional distance proposition, we find that 1) the effect is driven by the influence of FIIs from countries with high-quality institutions (i.e., high-shareholder-protection, high-government-effectiveness, and high-regulatory-quality) on investee firms located in countries with low-quality institutions; and 2) FIIs from countries with similar levels of institutions as investee firms' countries have little influence on corporate tax avoidance. Interestingly, we further find that FIIs from countries with lower levels of institutions have no effect on tax avoidance of investee firms from countries with higher levels of institutions. This result is also consistent with our institutional distance proposition because the relational costs and unfamiliarity costs are lower when FIIs invest in countries with higher institutions.

Furthermore, we examine whether the effect of FIIs on corporate tax avoidance is conditional on their previous experience and their monitoring incentives. First, we separate FIIs into those with (tax avoidance) experience in host countries and those without. FIIs without previous experience in host countries will incur higher relational costs and unfamiliarity costs. Thus, we

expect that the effect is more pronounced to them. We find consistent results. Second, we separate FIIs into long-run/short-run investors and independent/grey investors. Long-run institutional investors care more about a firm's long-term value creation and therefore are more likely to monitor (Bushee, 2001; Khurana & Moser, 2013). Independent institutional investors, such as mutual funds and investment advisers, are more likely to monitor firms because they are less likely to have business ties with the firms (Ferreira & Matos, 2008). We expect and find that the effect of FIIs on tax avoidance is concentrated on FIIs with stronger monitoring incentives (i.e., long-run FIIs and independent FIIs).

Finally, we examine whether FIIs voice their concerns through voting when their invested firms engage in aggressive tax avoidance. We conjecture that FIIs are more likely to vote against the management of high-tax-avoidance firms. Consistent with our conjecture, we find supportive results. This provides further empirical evidence on how FIIs influence their investee firms' tax planning.

Our study contributes to the literature in several ways. First, we examine the relationship between institutional investors and corporate tax avoidance in an international setting. Prior studies in this area generally focus on a single country such as the U.S. (e.g., Cheng et al., 2012; Khurana & Moser 2013; McGuire et al., 2014; Khan et al., 2016; Chen et al., 2018). In this paper, we examine the effect of FIIs in an international, multi-country setting, and find that FIIs, who play an increasingly important role in global financial markets, influence their investee firms' tax planning that is above and beyond that of domestic institutional investors. In addition, further evidence shows that the effect of FIIs on corporate tax avoidance is concentrated on independent FIIs and FIIs with strong monitoring incentives. This further demonstrates that our paper complements prior studies (e.g., Cheng et al., 2012).

Second, we find that the effect of FIIs on their investee firms' tax avoidance is not homogenous. We find that only FIIs from countries with high-quality institutions affect tax avoidance of investee firms from countries with low-quality institutions. Thus, our findings highlight the importance of considering the presence of heterogeneity among foreign institutional investors (e.g., their institutional backgrounds) and show a complete picture of the impact of institutional investors on firms' tax planning around the world.

Third, recent studies find "home bias" at the time of portfolio allocation due to institutional distance (e.g., Chan et al., 2005; Anderson et al., 2011). We complement and extend the institutional distance theory by showing that the effect of institutional distance also exists after portfolio allocation. Specifically, we focus on corporate tax avoidance, a corporate policy that is associated with higher institutional distance costs (e.g., relational costs and unfamiliarity costs). We identify that the costs of institutional distance are underlying reasons that lead FIIs to push their investee firms to reduce the level of tax avoidance. Thus, our study contributes to the increasing importance and applicability of institutional distance theory to explain firm behavior in the international context.

Fourth, our paper also contributes to the literature by illustrating FIIs' role in corporate policies. Compared to domestic institutional investors, FIIs are more independent and have more international visibility. Extant literature shows that FIIs affect firm value and performance (Ferreira & Matos, 2008), financial reporting practices (Fang et al., 2015), corporate governance (Aggarwal et al., 2011), innovation (Luong et al., 2017), auditor choice (Kim et al., 2019), and voluntary disclosure (Tsang et al., 2019). Our study extends this stream of research by showing FIIs' effect on investee firms' corporate tax planning, an important corporate decision that is associated with

various risks, including information risk, auditing risk, and agency risk, and one that has received considerable attention from regulators and policymakers internationally.²

2. Prior literature and hypothesis development

2.1. Prior studies on the relationship between ownership structure and tax avoidance

Prior studies document that different ownership structures affect corporate tax avoidance differently. For example, Khurana and Moser (2013) find that long-run institutional investors reduce corporate tax avoidance because such activities encourage managerial opportunism and reduce transparency. Chen et al. (2010) document a negative association between family firms and tax avoidance. They attribute this negative association to the deterrence of potential stock price discounts by outside shareholders. Furthermore, McGuire et al. (2014) find that firms with dual-class ownership have lower levels of corporate tax avoidance because of management entrenchment. Cheng et al. (2012) show that hedge fund activists target firms with lower levels of tax avoidance and push effort-averse managers to increase their tax avoidance. More recently, using the Russell Index reconstitution setting, Khan et al. (2016) and Chen et al. (2019) document that increases in institutional investors with passive and diversified holdings (i.e., quasi-indexers) are associated with increases in corporate tax avoidance. In sum, these studies indicate that different groups of institutional investors have different incentives, and therefore their impacts on corporate tax avoidance are different.

One important type of ownership structure that has been largely unexplored in the tax literature is foreign institutional ownership. According to the IMF, total investment in equity assets by institutional investors has risen more than sevenfold since 1990 to around US\$100 trillion in

² For example, deterring corporate tax avoidance has been one of the core issues at the Group of Twenty (G20) summit for the last several years.

2015. These FIIs account for more than 50% of total institutional ownership for non-US firms, substantially different from that in the United States (Luong et al., 2017). Thus, it is economically important to investigate how FIIs affect corporate tax avoidance. Next, based on the unique characteristics of FIIs and institutional distance theory, we discuss how FIIs could affect corporate tax avoidance.

2.2. Hypothesis development

Institutional distance is a relatively new construct in the literature that captures the differences between institutional environments of two countries (Kostova, 1999; Xu & Shenkar, 2002). Institutional distance is developed from institutional theory. The institutional theory says that institutions are “the constraints that shape human interaction” (North, 1990), and are the key determinant of individual and organizational behavior (e.g., DiMaggio & Powell, 1983, 1991; Scott, 1995). However, the rules and regulations of doing business in foreign countries can be quite different from home countries, which lead to institutional distance between host countries and home countries.

Business is regulated by laws, formal rules, and regulations as sanctioned by a state (North, 1990). The regulatory environment comprises elements such as constitutions, laws, and property rights, and it varies in different countries that lead to ‘regulative distance’ between home and host countries. Mezias (2002) points out that the differences in institutional environments cause additional costs of doing business abroad. These costs can be classified into two categories: relational costs and unfamiliarity costs (e.g., Gaur & Lu, 2007). Relational costs are similar to agency costs, and they are associated with problems in managing relationships at a distance. Relational costs include costs of monitoring, dispute settlement, opportunistic behavior of local partners, and lack of trust in unknown partners (Buckley & Casson, 1998). Unfamiliarity costs arise

from a lack of knowledge of the host environment (Caves, 1971). As the institutional distance between home countries and host countries increases, both relational costs and unfamiliarity costs increase (Xu & Shenkar, 2002).

FIIIs could avoid institutional distance costs by not investing in foreign countries *ex ante*, or mitigate such costs by influencing their investee firms' decision-making *ex post*. For example, Chan et al. (2005) find that institutional investors exhibit "home bias" at the time of portfolio allocation. They further find that stock market development and familiarity play important roles in the domestic bias. Their findings indicate that institutional distance affects institutional investors' portfolio allocation.

A new stream of studies shows that FIIIs are more likely to impose their home countries' good institutions *ex post* on investee firms, especially on those firms who are located in countries with low-quality institutions. For example, Aggarwal et al. (2011) find that FIIIs bring good governance practices (e.g., strong shareholder protection) to their investee firms to increase the governance quality of investee firms. Fang et al. (2015) focus on financial reporting quality and find that FIIIs promote financial reporting comparability of investee firms. Kim et al. (2019) find that FIIIs play an important role in influencing their investee firms' auditor choices. They further find that the effect is stronger when FIIIs are from countries with stronger governance institutions, or their investee firms have more severe information asymmetries. Tsang et al. (2019) show that FIIIs lead to improved voluntary disclosure of their investee firms, and this effect is more pronounced when FIIIs are unfamiliar with the firm's home country and are from countries with stronger investor protection. In sum, these studies suggest that FIIIs, especially those who are from countries with high-quality institutions, are more likely to exercise good governance practices, such as shareholder protection, accounting comparability, auditing quality, and disclosure quality, in their investee firms.

Tax avoidance is one of the corporate activities that are associated with high agency costs. Balakrishnan et al. (2019) examine the relationship between tax avoidance and financial reporting transparency. They argue that although tax avoidance could provide expected tax savings, it simultaneously increases financial and organizational complexity, which in turn hinders investors from understanding the firm's operations. In addition, managers are more likely to hide their tax avoidance transactions and provide opaque financial reports to avoid being audited by the tax authorities (Kim et al., 2011; Balakrishnan et al., 2019). Kim et al. (2011) find a positive relationship between tax avoidance and stock price crash risk. Balakrishnan et al. (2019) find that there is a positive relationship between tax avoidance and information asymmetry. Financial reports are the predominant information resource for outsider investors for their decision-making (Gassen & Schwedler, 2010; Chen et al., 2018). In a report provided by BlackRock, one of the world's leading asset management firms, it explicitly states that "the reporting and disclosure provided by companies help shareholders assess whether the economic interests of shareholders have been protected" (BlackRock, 2017, page 7). Desai and Dharmapala (2006) posit that tax avoidance activities are necessarily complex, obfuscated, and opaque, and there is a positive feedback effect between corporate tax avoidance and managerial actions that divert corporate resources for the manager's private benefits (i.e., managerial rent diversion).³

Compared to domestic institutional investors (DIIs), FIIs incur additional relational (agency) costs when their investee firms engage in tax avoidance activities. For example, FIIs are less likely

³ Several studies confirm the existence of such a positive feedback effect. For example, Chen et al. (2010) argue that a strong positive feedback effect could intensify the agency conflict between outside shareholders and family owner-managers, leading investors to demanding a discount on share price. They find that family firms have lower levels of tax avoidance when compared to their non-family counterparts, indicating that family owner-managers are willing to forego tax benefits to avoid the potential price discount. Similarly, Khurana and Moser (2013) find that the levels of tax avoidance are negatively associated with the fraction of shares held by long-term institutional investors, suggesting that long-term institutional investors anticipate a strong positive feedback effect between corporate tax avoidance and rent diversion, and consequently they seek to constrain managers' ability to avoid taxes.

to know local managers well enough to understand their tax avoidance behavior and trust them that such behavior is beneficial for FIIs. In other words, managers' tax avoidance behavior is more uncertain and less trustworthy to FIIs. In order to mitigate such agency conflicts, FIIs need to more closely monitor investee firms, incurring higher monitoring costs. Therefore, to the extent that higher levels of tax avoidance are associated with a higher level of information asymmetry and managerial opportunistic behavior (e.g., Desai & Dharmapala, 2006; Balakrishnan et al., 2019), FIIs incur higher relational (agency) costs if their investee firms engage in more tax avoidance activities. Therefore, we expect that FIIs would discourage their investee firms from engaging in tax avoidance activities.

As we discussed earlier, institutional distance also causes unfamiliarity costs for FIIs (Mezias, 2002; Gaur & Lu, 2007). To the extent that FIIs come from institutionally distant countries, they are not familiar with the host country's regulatory environment and political landscape. In fact, tax systems are generally complicated and vary significantly among different countries (Atwood et al., 2012). Even within a country, tax codes also change frequently. Firms need to be very familiar with local tax laws to develop their tax avoidance strategies without triggering legal liabilities.

Anecdotal evidence also shows that foreignness is associated with a higher likelihood of scrutiny (Mezias, 2002) because local governments tend to scrutinize foreign investments due to national security and economic impacts (Kirkland Alert, 2017). Further, FIIs would also face higher costs once getting caught due to their lack of local ties (e.g., Ferreira & Matos, 2008; Aggarwal et al., 2011). Corporate tax avoidance activities have faced increasing government and media scrutiny as well as litigations in recent years (e.g., Hanlon & Slemrod, 2009; Graham et al., 2014; Dyreng et al., 2016). A 2014 survey by EY finds that both media scrutiny and tax audits have become more aggressive in recent years (EY, 2014). Therefore, without sufficient knowledge of how firms in the

host countries engage in tax avoidance in a way that would avoid getting caught, FIIs would incur higher unfamiliarity costs if their investee firms engage in more tax avoidance activities.

In sum, because of the costs caused by the institutional distance between FIIs' home countries and their investee firms' countries, we predict that FIIs prefer a lower level of tax avoidance. Therefore, we formalize our hypothesis as follows:

H: FIIs reduce their investee firms' tax avoidance.

3. Data and variable measurement

3.1. Data

We obtain data from several sources. International institutional ownership information comes from the FactSet/LionShares database. The FactSet/LionShares database provides detailed information about institutional investors' holdings, names, types, turnover rates, and headquarter locations, as well as information on their investee firms' prices, shares outstanding, and locations in international capital markets. The FactSet/LionShares database collects data from professional money managers (mutual funds, pension funds, and bank trusts) and insurance companies directly from public sources (i.e., national regulatory agencies, stock exchanges, industry directories, and company proxies). International institutional ownership studies in the field of accounting and finance have used this dataset as a primary source (e.g., Ferreira & Matos, 2008; Aggarwal et al., 2011). A major drawback of this database, however, is that institutional investors report their holdings on different reporting dates with irregular frequency across countries. To address this issue, following Ferreira and Matos (2008), we retain the latest institutional holding information at each year-end. This provides us 242,142 observations from 2000 to 2016, as shown in Table 1.

[Insert Table 1 here]

We then merge FactSet/LionShare data with Global Compustat to obtain the corporate tax avoidance variable and control variables. To calculate corporate tax avoidance, we obtain necessary firm-level variables from Global Compustat. It leads to 115,083 observations. In addition, following Tsang et al. (2019), we remove those countries with less than 100 firms during our sample period. It leaves us 109,674 observations. We also remove loss firms, utility firms, and financial institutions as well as observations with missing values to get our final sample of 84,172 observations in 30 countries from 2000 to 2016.

We include country-level variables in additional analyses. Country-level variables come from various sources. In particular, country-level legal origins data come from La Porta et al. (1998). Indexes for government effectiveness and regulatory quality come from the Worldwide Governance Indicators (WGI) database provided by the World Bank Group.

3.2. *Measurements*

3.2.1. *Tax avoidance measurement*

Following Atwood et al. (2012) and Hasan et al. (2017), we define tax avoidance as “the reduction of explicit taxes paid” and use the modified cash effective tax rate calculation from Dyreng et al. (2008) as our primary measure of tax avoidance.⁴ The tax avoidance for firm i at year t is calculated as follows:

$$\text{TaxAvoid}_{i,t} = \frac{(\text{PreTaxEarn} * \text{Tax Rate})_{i,t} - \text{TaxPaid}_{i,t}}{\text{PreTaxEarn}_{i,t}} \quad (1)$$

⁴ We use the annual tax avoidance measurement in our baseline model, instead of the three-year average of tax avoidance used in Atwood et al. (2012), but we construct robustness tests with two-year and three-year averages of tax avoidance. The results are consistent with our baseline result.

Where:

PreTaxEarn = pretax earnings less special items

Tax Rate = home-country statutory corporate income tax rate

TaxPaid = current cash tax paid⁵

3.2.2. *International institutional ownership*

We first calculate total institutional ownership, *Totown*, as the aggregate institutional investors' holdings divided by total shares outstanding for firm *i* at year *t*. We then separate total institutional ownership into foreign institutional ownership and domestic institutional ownership based on the country origin of each institutional investor. Foreign (Domestic) institutional ownership, *Forown* (*Domown*), is the aggregate of FIIs' (DIIs') holdings divided by shares outstanding for firm *i* at year *t*.

3.3. *Summary statistics*

Table 2 presents the country distribution of our sample and the summary statistics of the key variables. There are 30 countries/regions in our sample. We report the number of observations, mean values of FIIs, DIIs, and tax avoidance for each country. We find that the country with the largest number of observations is Japan (15,265), followed by China (11,574). The country with the smallest number of observations is the Philippines (295), followed by Mexico (405). With regard to institutional ownership, we find that in 22 out of the total 30 countries/regions in our sample, the mean value of FIIs is greater than the mean value of DIIs, indicating the potentially significant role FIIs play in many countries around the world. For tax avoidance, we find that China has the highest

⁵ Following Atwood et al. (2012), if current cash tax paid is missing, we replace it with total tax expense less deferred tax expense. In the robustness test (untabulated), we find consistent results if we remove firms with missing value of current cash tax paid.

level of tax avoidance in our sample, followed by Taiwan. Italy has the lowest level of tax avoidance, followed by Korea.

[Insert Table 2 here]

Table 3 presents descriptive statistics on variables used in our empirical analyses. The mean (median) value of tax avoidance is 6.8% (7.6%), similar to Li et al. (2018) that show a mean (median) value of tax avoidance of 6.2% (9.0%). Institutional investors hold, on average, 9.9% of ownership, with approximately 4.7% foreign institutional ownership and 5.1% domestic institutional ownership. This is comparable to Luong et al. (2017) that document 4.5% foreign institutional ownership and 3.8% domestic institutional ownership on average. We also compare our institutional ownership data from individual countries to those documented in Luong et al. (2017). It is comparable as well. Our sample firms have average assets of US\$1,661 million and leverage (debt to assets) of 22.5%. During our sample period, the average corporate tax rate is about 28.3% for the 30 countries/regions where investee firms are located.

[Insert Table 3 here]

4. Empirical results

4.1. Baseline regression results: Foreign institutional ownership and tax avoidance

In Table 4, we investigate the effect of institutional ownership on tax avoidance. Following the tax avoidance literature (e.g., Hasan et al., 2017), Our baseline regression model is as follows:

$$TaxAvoid_{i,t} = \alpha_0 + \sum \alpha_m InstOwn_{i,t} + \sum \alpha_n Control_n + \alpha_{year} + \alpha_{industry} + \alpha_{country} + \varepsilon_{i,t} \quad (2)$$

Where:

TaxAvoid_{i,t} = tax avoidance measurement from Model (1)

InstOwn_{i,t} = types of institutional ownership (e.g., *Totown*, or *Domown* and *Forown*, etc.)

α_{year} = year-fixed effects

α_{industry} = industry-fixed effects (48 Fama-French industry classification)

α_{country} = country-fixed effects

Control = $\ln(\text{Size})_{i,t-1}$, $\text{Leverage}_{i,t}$, $\text{ROA}_{i,t}$, $\text{Sales Growth}_{i,t}$, $\text{R\&D}_{i,t}$, $\text{Accrual}_{i,t}$, $\text{Tax Rate}_{i,t}$, $\text{Foreign Operations}_{i,t}$ (see Appendix for detailed information)

In Column (1), we first examine the association between tax avoidance and total institutional ownership (*Totown*). We find that the coefficient on *Totown* is -0.000, which is not statistically significant. This indicates that, on average, total institutional ownership has no significant impact on corporate tax avoidance.

[Insert Table 4 here]

To test how FIIs affect corporate tax avoidance, we split institutional ownership into foreign (*Forown*) and domestic (*Domown*) institutional ownership. Column (2) reports the results. We find that the coefficient on *Forown* is negative and statistically significant at the 1% level. Economically, the coefficient estimate of FIIs is -0.035, which translates into corporate tax avoidance decreasing by, on average, 0.26 percent (a 4% decrease in relative terms based on the mean value of tax avoidance) when foreign institutional ownership increases by one standard deviation in our sample. This decrease in tax avoidance would equal an increase of US\$0.3 million in tax expenses by an average firm in our sample. For domestic institutional ownership, the coefficient is positive (0.034)

and statistically significant at the 1% level. It translates into corporate tax avoidance increasing by 0.29 percent (a 4% increase in relative terms based on the mean value of tax avoidance) when domestic institutional ownership increases by one standard deviation. The result on domestic institutional ownership is consistent with Khan et al. (2016) and Chen et al. (2019). Hence our results indicate that the impact of foreign institutional ownership has a *distinct* and *incremental* effect on tax avoidance beyond that of domestic institutional ownership. While domestic institutional investors increase tax avoidance, foreign institutional investors decrease tax avoidance.

4.2. Identification

Our model could suffer from endogeneity. For example, if FIIs prefer to invest overseas in firms with low tax avoidance, firms with low tax avoidance may be more likely to have high foreign institutional ownership. In addition, although we try to include control variables that are found to affect tax avoidance in the literature, our model could still suffer from omitted variable bias. In this subsection, we use two identification strategies to mitigate this concern. First, we conduct a difference-in-differences (DiD) analysis using a natural experiment setting of China's Qualified Foreign Institutional Investors reform. Second, following Ferreira and Matos (2008), we conduct a two-stage least squares test with an instrumental variable.

4.2.1. Natural experiment: China's Qualified Foreign Institutional Investors reform

We first address endogeneity concerns by exploiting a quasi-natural experiment. Many stocks traded on Chinese exchanges offer two types of shares: A share and B share. A share is a regular stock, which was available to domestic investors but unavailable to foreign investors before 2002. If foreign investors wanted to invest in China's stock market before 2002, they could purchase stocks only through B shares. B shares have the same rights as A-shares except that Type B

shareholders receive dividends in foreign currency. Compared with A shares, the number of B shares was limited. In 2002, China's Qualified Foreign Institutional Investors reform took effect. This reform is China's effort to further open its capital market by allowing qualified foreign investors to directly purchase RMB-denominated A shares in China's mainland Shanghai and Shenzhen stock exchanges. This reform attracted more FIIs to invest in China's stock market, which provides us with a good natural experiment setting.

Because our sample started in 2000 and the reform happened in 2002, we analyze a $[-2, 2]$ -year window excluding the event year 2002. In an untabulated test, we find that FIIs in China increase by 8.6% (from 8.5% to 17.1%) after the reform, and this increase is significant at the 5% level. The result confirms an important assumption of our setting: the number of shares held by FIIs increases significantly after the legal reform.

Our difficulty in conducting a difference-in-differences analysis comes from the fact that there is no perfect control group of countries to match with China. Given the fact that China is a civil-law, low-government-effectiveness, and low-regulatory-quality country, we choose three different sets of control countries based on those three criteria.

Table 5 reports the results of difference-in-differences regressions using these three different sets of control countries. Three variables of interest are *China*, *Post-Reform*, and *China*Post-Reform*. *China* is an indicator that equals one if the investee firms' home country is China, and zero otherwise. *Post-Reform* is an indicator that equals one if the observational year is after China's reform year, 2002, and zero otherwise. *China*Post-Reform* is the interaction term between *China* and *Post-Reform*, capturing the post-reform effect on investee firms in China compared to those in control countries. The coefficients on *China* are positive and significant in all three regressions, indicating that Chinese firms avoid more taxes than firms in control groups. The coefficients on *Post-Reform* are positive and significant in all three regressions, indicating that firms in control

groups incur more tax avoidance after 2002. The coefficients on our variable of interest, *China*Post-Reform*, are all negative and significant in three regressions, indicating that the significant increase in foreign institutional ownership leads to a decrease in tax avoidance in China compared to benchmark countries. We also test the significance of the sum of *Post-Reform* and *China*Post-Reform*. It is not significantly different from zero. This indicates that Chinese firms do not incur more tax avoidance after the reform. Overall, we find robust results that FIIs reduce corporate tax avoidance.

[Insert Table 5 here]

4.2.2. Two-stage least squares (2SLS) model

We further implement a two-stage least squares (2SLS) model with an instrumental variable (IV). A good IV is correlated with the endogenous variable and not directly correlated with the dependent variable. It is correlated with the dependent variable only through the endogenous variable. Ferreira and Matos (2008) find that FIIs prefer firms listed in the Morgan Stanley Capital International (MSCI) index.⁶ Therefore, following Ferreira et al. (2010), we use *MSCI Inclusion* as an instrumental variable for foreign institutional ownership. *MSCI Inclusion* equals one if a given firm is included in MSCI in a given year t , and zero otherwise. It is not possible to prove that the instrumental variable is correlated with the dependent variable only through the endogenous variable. However, there is no theoretical or empirical evidence documenting that inclusion in the MSCI index affects firm-level corporate tax avoidance behavior.

⁶ The MSCI data contained herein is the property of MSCI Inc. (MSCI). MSCI, its affiliates and its information providers make no warranties with respect to any such data. The MSCI data contained herein is used under license and may not be further used, distributed or disseminated without the express written consent of MSCI.

We then regress tax avoidance on predicted foreign institutional ownership (*Pred_Forown*) from first-stage regression. Table 6 reports the results. We find that *MSCI Inclusion* is significantly and positively associated with foreign institutional ownership at the 1% level. The F-statistic (Stock & Yogo 2002) is 130.21, much greater than the conventional threshold of 10. This suggests that our instrument is not weak. A small R squared also indicates a potential weak instrument problem (Cameron & Trivedi 2005). The R squared in our first stage regression is 37.4%. It is not small in the conventional sense. Thus, our instrument is less likely to be weak. In the second stage, we find that *Pred_Forown* is significantly and negatively associated with tax avoidance at the 10% level. This result is consistent with our baseline result - that is, foreign institutional ownership reduces tax avoidance.

[Insert Table 6 here]

4.3. Exploring underlying mechanisms

4.3.1. Institutional distance

So far, we have documented that FIIs reduce corporate tax avoidance. We conjecture that institutions (e.g., shareholder protection, government effectiveness, and regulatory quality) affect FIIs' preferences and understanding of the regulatory environment of host countries. In this subsection, we investigate this possible mechanism that could drive the negative relation between FIIs and corporate tax avoidance. Specifically, we examine the effect of institutional distance from three perspectives: shareholder protections, government effectiveness, and regulatory quality. Following Aggarwal et al. (2011), we use law origin (*CivilLaw*) to proxy shareholder protection. La Porta et al. (1998) argue that common-law countries, compared with civil-law countries, have stronger investor protection.

Indexes for government effectiveness (*GovEffective*) and regulatory quality (*RegQuality*) are from the Worldwide Governance Indicators (WGI) database provided by the World Bank Group. WGI data “are a research dataset summarizing the views on the quality of governance provided by a large number of enterprise, citizen, and expert survey respondents in industrial and developing countries. These data are gathered from a number of survey institutes, think tanks, non-governmental organizations, international organizations, and private sector firms (WGI). Government effectiveness indicator “reflects perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government’s commitment to such policies” (WGI). Regulatory quality indicator “reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development” (WGI). These two indicators range from -2.5 to 2.5, with -2.5 indicating the weakest government performance and 2.5 indicating the strongest government performance.

We conjecture that FIIs affect corporate tax avoidance because of the costs of institutional distance. Thus, we expect that the effect is concentrated on FIIs from different institutions than host countries. To test this conjecture, we respectively separate FIIs into those from countries with common law/high-government-effectiveness/high-regulatory-quality and those from countries with civil law/low-government-effectiveness/low-regulatory-quality based on their legal systems or the median values of the last two indexes. Using the same method, we also separate investee firms into a subsample of those located in countries with common law/high-government-effectiveness/high-regulatory-quality and a subsample of those located in countries with civil law/low-government-effectiveness/low-regulatory-quality. We expect that the effect is concentrated on FIIs from countries with different institutions compared to their host countries.

Table 7 presents the results. We find that the effect is driven by FIIs from countries with common law/high-government-effectiveness/high-regulatory-quality on investee firms located in countries with civil law/low-government-effectiveness/low-regulatory-quality.⁷ In addition, we find that FIIs from countries with similar levels of institutions as investee firms' countries have little significant influence on corporate tax avoidance,⁸ regardless of whether they are both from high or low levels of institutions. The results provide supportive evidence for our institutional distance proposition as well.

Furthermore, the effect of FIIs from civil law/low-government-effectiveness/low-regulatory-quality on investee firms located in countries with common law/high-government-effectiveness/high-regulatory-quality is not significant. The result further confirms that the effect of institutional distance is asymmetric. The result is also consistent with prior studies, which find that the effect of FIIs only happens from high levels of institutions to low levels of institutions, but not the other way around (e.g., Kim et al., 2019).

[Insert Table 7 here]

4.3.2. *FIIs' experience*

To further strengthen the validity of our results, we extend our analysis by investigating how FIIs' experience affect corporate tax avoidance of their investee firms. We hypothesize that FIIs

⁷ The coefficient difference of FIIs from high-quality institutions between the subsample of investee firms located in high-quality institutions and the subsample of investee firms located in low-quality institutions is statistically significant in all three tests.

⁸ The only one exception is the effect of FIIs from low-government-effectiveness countries on investee firms in low-government effectiveness countries. The coefficient is positive and significant, indicating that FIIs from low-government-effectiveness countries increase corporate tax avoidance of investee firms in low-government effectiveness countries. This is not inconsistent with our conjecture. FIIs from low-government-effectiveness countries do not have institutional distance with their investee firms in low-government-effectiveness countries. Thus, they do not have such a motivation to reduce investee firms' tax avoidance. The lack of such motivation can lead to either no impact on tax avoidance or more tax avoidance. In this case, it is the latter case.

reduce their investee firms' tax avoidance due to relational cost and unfamiliarity cost. We conjecture that these costs will diminish with tax avoidance experience in the investee firm's country. Thus, we expect that the effect of FIIs on tax avoidance should be driven by those FIIs with little experience in the country where their investee firms are.

In order to test this conjecture, following Cheng et al. (2012), we separate FIIs into two groups, those with experience and those without. We employ two sets of proxies for FIIs' experience. *Forown_Experienced* (*Forown_New*) is calculated as aggregate ownership of foreign institutional investors who have (not) invested in the company's country in the past five years. *Forown_Avoidprior* (*Forown_Noavoidprior*) is calculated as aggregate ownership of foreign institutional investors whose invested companies' average tax avoidance change in the past five years is above (below) the median in a country in a year. The results are presented in Panel A of Table 8.

[Insert Table 8 here]

In Column (1), we find that both *Forown_Experienced* and *Forown_New* reduce tax avoidance of investee firms, with *Forown_New* has a much larger magnitude of the coefficient,⁹ indicating that FIIs who are new to their investee's countries push for more reduction of tax avoidance. In Column (2), we find that FIIs with more prior tax avoidance experience in the same country increase investee firms' tax avoidance, while FIIs with less prior tax avoidance experience in the same country reduce investee firms' tax avoidance. These results indicate that the effect of FIIs on tax avoidance of investee firms is driven by those that are not familiar with investee firms'

⁹ We test the difference of coefficients on *Forown_Experienced* and *Forown_New*. It is not statistically different with p value of 12%. This indicates that both FIIs with experience and without experience reduce corporate tax avoidance.

country. It lends support that our baseline finding results from the unfamiliarity due to institutional distance.

4.3.3. FIIs' voting strategy

FIIs not only have incentives to influence their invested firms' tax planning, but also have the ability to do so. One of the ways that FIIs can use to voice their preference is through voting (Shleifer & Vishny, 1986; Burkart et al., 1997; Kahn & Winton, 1998). We conjecture that FIIs are more likely to vote against management if the firm engages in tax avoidance, especially aggressive tax avoidance. In order to empirically test this conjecture, we obtain global voting data from Voting Analytics in ISS (Institutional Shareholder Services) database. The company vote results for global firms are available from 2013. We test the voting consequences at year $t+1$ on tax avoidance and foreign institutional ownership at year t . Thus, the sample period for this test is from 2012 to 2016. The voting matters vary. It is rare that firms have proposals for tax planning explicitly. However, business matters are intricate and interconnected. The voting pattern is a reasonable indicator of shareholders' preference for tax planning. Thus, we conjecture that if FIIs are concerned with their invested firms' tax planning, they will voice their concerns through any possible voting matters. Therefore, we use all the voting results in the dataset for our test.

Following He et al. (2019), we define our dependent variable, *Against*, as a dummy variable equal to one if management loses a vote in a proposal and zero otherwise. Our variable of interest is the interaction between high tax avoidance (*Dummy_TaxAvd*) and foreign institutional ownership (*Forown*). *Dummy_TaxAvd* equals one if a firm's tax avoidance is in the top tercile of the rank in the same year and country, and zero otherwise. *Forown* is the average aggregate foreign institutional ownership in each firm. We control for firm characteristics used in baseline regression as well as year fixed effects, industry fixed effects, and country fixed effects.

Table 8 Panel B presents the results. We find insignificant coefficients on both *Dummy_TaxAvd* and *Forown*. We further find a significant and positive coefficient on their interaction term. This indicates that FIIs are more likely to vote against the management of firms with a high level of tax avoidance. It provides supportive empirical evidence that FIIs influence their invested firms' tax avoidance through their voting power.

4.4. FIIs' monitoring incentive

In this paper, we assume that FIIs actively monitor their investee firms and consequently have a significant impact on corporate tax avoidance. If this is the case, we should find that our result is driven by FIIs who are active monitors. In this subsection, we test this underlying assumption. We use two ways to separate FIIs into those that are active monitors and those that are not.

Khurana and Moser (2013) argue that long-term institutional ownership reduces tax avoidance through enhanced monitoring and find consistent results. Their evidence is broadly consistent with existing institutional ownership literature showing that investors with long-term institutional ownership care more about the firms' long-term value creation (e.g., Bushee, 2001). Thus, we separate institutional investors into long-term and short-term and examine whether the effect is driven by long-term FIIs. In FactSet/Lionshare dataset, each institutional investor is labeled with its turnover of "very low", "low", "medium" and "high". We define institutional investors with high turnover as short-term investors and the rest as long-term. Furthermore, Ferreira and Matos (2008) report that not all institutional investors actively monitor their investee firms' decisions due to potential business ties with the firms. Particularly, they find that independent institutions (such as mutual funds and investment advisers) actively monitor firms while grey institutions (such as bank trusts, insurance companies, and other institutions) tend to be loyal to corporate management and

less likely to actively monitor. Following Ferreira and Matos (2008), we define independent institutions as mutual funds and investment advisers and grey institutions as bank trusts, insurance companies, and other institutions. We separate FIIs into independent FIIs and grey FIIs and examine whether the effect is concentrated on independent FIIs.

In Table 9 Column (1), our main variable of interest is foreign institutional ownership, partitioned by investment horizon: *Forown_Long* and *Forown_Short*. We also partition domestic institutional ownership by investment horizon for additional insights. We find long-term foreign institutional ownership (*Forown_Long*) exhibits significantly negative coefficients at the 5% level, but short-term foreign institutional ownership (*Forown_Short*) is not significantly related to *TaxAvoid*. In addition, long-term domestic institutional ownership (*Domown_Long*) exhibits a significantly positive coefficient at the 1% level, whereas short-term domestic institutional ownership (*Domown_Short*) is not significantly related to *TaxAvoid*. The results are consistent with Khurana and Moser (2013) and demonstrate that FIIs' investment horizon also matters to their impact on corporate tax avoidance.

[Insert Table 9 here]

Column (2) further presents the results for the effects of independent FIIs and grey FIIs. We find that the coefficient on *Forown_Indep* is negative and significant at the 1% level, while the coefficient on *Forown_Grey* is insignificant. This indicates that independent FIIs, not grey FIIs, actively monitor their investee firms' tax avoidance. This is consistent with Ferreira and Matos (2008) that independent institutional investors are active monitors while grey institutional investors are not. Overall, we find supportive evidence with our underlying assumption that the effect of FIIs on tax avoidance results from FIIs' active monitoring of their investee firms.

4.5. Additional tests

Finally, we provide several additional tests to show the robustness of our results. First, although we follow prior studies (e.g., Atwood et al., 2012) to measure tax avoidance, it could be subject to measurement error. For example, country-level accounting or tax regulation changes could affect our tax avoidance measure, which makes our measure not consistent over time and across countries. To mitigate the influence of variation and distribution of the annual score problem, instead of using a continuous variable to capture tax avoidance, we construct a dummy variable of tax avoidance, which is more comparable across time, industry, and country. Following Donohoe and Knechel (2014), we rank tax avoidance by country, industry, and year. *Dummy (tax avoidance)* equals one if an observation is in the top tercile of the rank and zero otherwise. We report the results in Column (1), Panel A of Table 10. Using this alternative measure of tax avoidance, we continue to find that FIIs significantly reduce tax avoidance.

[Insert Table 10 here]

In addition, some time-variation country-level factors, such as country-level governance factors, could affect both tax avoidance and FIIs. Although we control for country fixed effect, it cannot deal with the time-variation omitted variable concern. We mitigate this concern in two ways. First, we include all country-level variables into our regression. Second, following Rajan and Zingales (1998), we include interaction terms between country and year in our regressions. We thus can test the effect of time-invariant variables, such as legal origin, while controlling for unobservable heterogeneous cross-country effects that might affect our findings. We report the results in Column (2), Panel A of Table 10. We find that our result is robust after controlling for country-level variables and country*year fixed effects.

In Panel B of Table 10, we further dissect FIIs into US and non-US FIIs to see if the impact of FIIs reducing tax avoidance is dominated by US FIIs. One may argue that the United States has a strong impact on the worldwide economy. Our results may only be driven by FIIs from the United States. The result shows that non-US FIIs reduce tax avoidance while US FIIs do not, suggesting that our result is not driven by FIIs from the United States.¹⁰

5. Conclusion

The importance of FIIs in global financial markets has been rising rapidly. In this paper, we examine whether and how FIIs affect corporate tax avoidance. Based on the newly developed institutional distance theory, we hypothesize and find robust evidence that FIIs reduce their investee firms' tax avoidance. To mitigate endogeneity concerns, we provide a series of analyses (e.g., difference-in-differences test and 2SLS test with IV) to identify the causal effect of FIIs on corporate tax avoidance. In addition, we find the effect of FIIs on tax avoidance is driven by those FIIs that have little prior experience in the host country. This further supports our hypothesis of institutional distance.

Moreover, we provide evidence to support our finding that FIIs affect corporate tax avoidance through institutional distance. The results show that the effect is driven by the influence of FIIs from countries with high-quality institutions on investee firms located in countries with low-quality institutions. We also find that FIIs from countries with similar levels of institutions as investee firms' countries have little significant influence on corporate tax avoidance. Furthermore, the effect does not go from low-quality institutions to high-quality institutions, which indicates that

¹⁰ We conduct analysis for each country, and find that 21 out of 30 countries have negative coefficients on foreign institutional investors.

the impact of institutional distance is asymmetrical: only good institutions, but not bad institutions, travel around the world.

Our paper contributes to the literature by illustrating FIIs' active role in corporate policies. Given the increasing international concerns about corporate tax avoidance from regulators and policymakers, our results have important implications for regulators, policymakers, and investors in the global financial market. For example, for firms with FIIs, they need to be aware of their foreign owners' different preferences due to their institutional distance from the local firms. By recognizing this difference, firms could be better equipped to deal with different types of owners. The important implications for investors in the global market could be that foreign investors recognize their own different situations compared to domestic investors and, therefore, their different strategies for their investee firms' operations. Our paper could also provide an indirect tool for regulators and policymakers that strive to reduce tax avoidance. In addition to direct policy curbing tax avoidance activities, attracting more foreign institutional investors could be an indirect method to help accomplish the goal.

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Table 1
Sample selection steps

	Number of Observations
FactSet/LionShare	242,142
Merge with Global Compustat	115,083
Remove countries with less than 100 firms	109,674
Remove loss firms, utility firms and financial institutions as well as observations with missing values	84,172

Notes: This table reports the steps of our sample selection with corresponding number of observations in each step.

Table 2

Summary statistics and correlations by country

Panel A. Summary statistics

Country	N	<i>TaxAvoid</i>	<i>Forown</i>	<i>Domown</i>
Australia	3,000	0.061	0.053	0.024
Brazil	1020	0.100	0.104	0.047
Chile	475	0.004	0.020	0.009
China	11,574	0.175	0.016	0.050
Finland	649	0.011	0.116	0.116
France	3,340	0.065	0.059	0.056
Germany	3,167	0.057	0.078	0.058
Hong Kong	3,178	0.012	0.056	0.020
India	5,198	0.095	0.035	0.053
Indonesia	683	0.015	0.048	0.003
Israel	795	0.064	0.023	0.022
Italy	1,051	-0.063	0.078	0.030
Japan	15,265	0.029	0.044	0.031
Korea	5,997	-0.024	0.061	0.003
Malaysia	2,409	0.054	0.029	0.014
Mexico	405	0.083	0.066	0.021
Netherlands	739	0.039	0.140	0.071
New Zealand	440	0.052	0.038	0.019
Norway	786	0.095	0.092	0.111
Pakistan	868	0.077	0.009	0.048
Philippines	295	0.144	0.058	0.001
Poland	1535	0.015	0.022	0.171
Singapore	1,839	0.013	0.041	0.011
Spain	826	0.075	0.077	0.048
Sweden	1550	0.040	0.079	0.174
Switzerland	942	0.002	0.119	0.076
Taiwan	7,844	0.156	0.046	0.020
Thailand	1,355	0.079	0.032	0.009
Turkey	549	0.040	0.080	0.015
United Kingdom	6,398	0.046	0.049	0.191

Notes: This table presents summary statistics of tax avoidance and institutional ownership by country.

Panel B. Correlations

Country	<i>TaxAvoid & Forown</i>	<i>TaxAvoid & Domown</i>	<i>Forown & Domown</i>
Australia	0.09	0.00	0.06
Brazil	-0.05	0.02	0.10
Chile	-0.06	0.04	0.16
China	-0.09	0.12	-0.13
Finland	0.00	0.08	0.19
France	0.05	0.07	0.41
Germany	-0.04	0.01	0.36
Hong Kong	0.07	0.05	0.49
India	-0.03	-0.10	0.26
Indonesia	-0.04	-0.07	0.17
Israel	0.05	0.02	-0.21
Italy	0.08	0.07	0.31
Japan	-0.06	-0.01	0.46
Korea	0.03	0.00	0.22
Malaysia	0.03	0.05	0.11
Mexico	-0.01	-0.10	0.10
Netherlands	0.05	-0.12	-0.16
New Zealand	0.03	0.01	0.04
Norway	-0.15	-0.06	0.26
Pakistan	0.05	-0.03	-0.09
Philippines	-0.12	0.05	0.22
Poland	-0.05	-0.08	0.14
Singapore	0.03	0.04	0.42
Spain	0.00	0.03	0.15
Sweden	-0.03	-0.11	0.50
Switzerland	-0.01	-0.05	0.20
Taiwan	-0.05	-0.06	0.09
Thailand	0.02	0.00	0.26
Turkey	0.03	0.13	0.44
United Kingdom	0.00	-0.01	0.17

Notes: This table presents correlations between tax avoidance, foreign institutional ownership, and domestic institutional ownership. Bold coefficients are statistically significant at the 10 percent level or below. See variable definitions in Appendix.

Table 3
Descriptive statistics

Variable Name	N	Mean	Median	Standard Deviation	25 th Percentile	75 th Percentile
<i>TaxAvoid</i>	84,172	0.068	0.076	0.178	-0.019	0.216
<i>Totown</i>	84,172	0.099	0.051	0.122	0.011	0.142
<i>Forown</i>	84,172	0.047	0.013	0.074	0.001	0.063
<i>Domown</i>	84,172	0.051	0.016	0.084	0.000	0.062
<i>Size (\$ in million)</i>	84,172	1661.130	297.872	4853.310	111.584	916.143
<i>Leverage</i>	84,172	0.225	0.187	0.206	0.045	0.345
<i>ROA</i>	84,172	0.076	0.054	0.077	0.025	0.100
<i>Sales Growth</i>	84,172	0.156	0.083	0.362	-0.005	0.222
<i>R&D</i>	84,172	0.011	0.000	0.027	0.000	0.008
<i>Accruals</i>	84,172	-0.371	-0.400	0.201	-0.496	-0.282
<i>Tax Rate</i>	84,172	0.283	0.275	0.071	0.242	0.340
<i>Foreign Operations</i>	84,172	0.642	1.000	0.480	0.000	1.000
<i>MSCI Inclusion</i>	84,172	0.100	0.000	0.300	0.000	0.000
<i>CivilLaw</i>	84,172	0.697	1.000	0.459	0.000	1.000
<i>GovEffect</i>	84,172	1.097	1.275	0.716	0.355	1.657
<i>RegQuality</i>	84,172	0.913	1.116	0.755	0.297	1.516

Notes: This table presents descriptive statistics on our sample of 84,172 firm-year observations. See variable definitions in Appendix.

Table 4
Foreign institutional ownership and tax avoidance

	(1)	(2)
	Dependent variable: <i>TaxAvoid</i>	
	<u>Full Sample</u>	<u>Full Sample</u>
<i>Totown</i>	-0.000 (-0.01)	
<i>Forown</i>		-0.035*** (-2.62)
<i>Domown</i>		0.034*** (3.04)
<i>Ln(Size)</i>	0.000 (0.61)	0.001 (1.48)
<i>Leverage</i>	0.020*** (4.44)	0.019*** (4.26)
<i>ROA</i>	0.259*** (20.63)	0.262*** (20.78)
<i>Sales Growth</i>	0.013*** (5.47)	0.013*** (5.43)
<i>R&D</i>	-0.054 (-1.60)	-0.051 (-1.52)
<i>Accrual</i>	0.033*** (7.24)	0.033*** (7.38)
<i>Tax Rate</i>	0.458*** (19.61)	0.459*** (19.67)
<i>Foreign Operations</i>	0.003* (1.76)	0.003* (1.84)
Constant	-0.123*** (-11.43)	-0.125*** (-11.59)
Year FE	YES	YES
Industry FE	YES	YES
Country FE	YES	YES
Observations	84,172	84,172
Adjusted R ²	0.210	0.211

Notes: This table presents results from OLS regressions. Appendix provides detailed definitions of the variables. Industry, country, and year dummies are included, but coefficients are omitted for brevity. Numbers in parentheses are *t*-statistics computed using standard errors that are clustered at the firm level. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Table 5
Qualified Foreign Institutional Investors reform in China and tax avoidance

	(1)	(2)	(3)
	Dependent variable: <i>TaxAvoid</i>		
	<u>Civil-Law</u>	<u>Low- Effective</u>	<u>Low- Quality</u>
<i>Post-Reform</i>	0.046*** (6.28)	0.027*** (2.97)	0.019* (1.92)
<i>China</i>	0.192*** (7.72)	0.173*** (6.28)	0.170*** (6.32)
<i>China* Post-Reform</i>	-0.056*** (-2.91)	-0.049** (-2.42)	-0.037* (-1.82)
<i>Ln(Size)</i>	-0.001 (-0.74)	-0.004 (-1.49)	-0.003 (-1.16)
<i>Leverage</i>	0.042*** (2.70)	0.055*** (2.74)	0.078*** (3.73)
<i>ROA</i>	0.220*** (4.85)	0.235*** (4.78)	0.322*** (5.14)
<i>Sales Growth</i>	-0.008 (-0.83)	-0.017 (-1.31)	-0.023* (-1.69)
<i>R&D</i>	-0.033 (-0.33)	-0.029 (-0.18)	-0.041 (-0.14)
<i>Accrual</i>	0.032** (2.39)	0.023 (1.22)	0.050** (2.46)
<i>Tax Rate</i>	0.784*** (6.54)	0.838*** (3.30)	0.548** (2.22)
<i>Foreign Operations</i>	0.007 (1.14)	0.019** (2.10)	0.014 (1.52)
Constant	-0.218*** (-4.36)	-0.204** (-2.19)	-0.117 (-1.29)
Year FE	YES	YES	YES
Industry FE	YES	YES	YES
Country FE	YES	YES	YES
Observations	5,058	2,677	2,640
Adjusted R ²	0.259	0.395	0.243

Notes: This table presents results of the difference-in-differences regression that examines the effect of China's Qualified Foreign Institutional Investors reform in 2002 on tax avoidance. It provides results from three pooled OLS regressions. *Post-Reform* is an indicator that equals one (zero) for years after (before) the 2002 reform. *China* is an indicator that equals one if the investee firms are located in China, and zero otherwise. *China*Post-Reform* captures the incremental post-reform effect in China. Appendix provides detailed definitions of the control variables. Industry, country, and year dummies are included, but coefficients are omitted for brevity. Numbers in parentheses are *t*-statistics computed using standard errors that are clustered at the firm level. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Table 6
Two-stage least squares (2SLS) model

Dependent variable	(1)	(2)
	<i>Forown</i>	<i>TaxAvoid</i>
	<u>1st Stage</u>	<u>2nd Stage</u>
<i>MSCI Inclusion</i>	0.050*** (21.85)	
<i>Pred_Forown</i>		-0.103* (-1.73)
<i>Domown</i>	0.093*** (14.77)	0.040*** (3.24)
<i>Ln(Size)</i>	0.017*** (43.49)	0.003* (1.68)
<i>Leverage</i>	-0.019*** (-8.91)	0.017*** (3.77)
<i>ROA</i>	0.112*** (18.99)	0.271*** (18.26)
<i>Sales Growth</i>	-0.000 (-0.60)	0.013*** (5.41)
<i>R&D</i>	0.135*** (6.82)	-0.040 (-1.17)
<i>Accrual</i>	-0.005*** (-2.72)	0.033*** (7.32)
<i>Tax Rate</i>	-0.052*** (-5.44)	0.455*** (19.32)
<i>Foreign Operations</i>	0.005*** (6.33)	0.004** (2.00)
Constant	-0.067*** (-15.18)	-0.131*** (-10.88)
Year FE	YES	YES
Industry FE	YES	YES
Country FE	YES	YES
Observations	84,172	84,172
Adjusted R ²	0.374	0.211

Notes: To address potential endogenous bias, we use the 2SLS model with *MSCI Inclusion* as the instrumental variable for foreign institutional ownership. *MSCI Inclusion* equals one if a given firm is included in MSCI in a given year t , and zero otherwise. We then regress tax avoidance on predicted foreign institutional ownership (*Pred_Forown*) from first-stage regression. Appendix provides detailed definitions of the control variables. Industry, country, and year dummies are included, but coefficients are omitted for brevity. Numbers in parentheses are t -statistics computed using standard errors that are clustered at the firm level. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Table 7
Institutional distance

	(1)	(2)	(3)	(4)	(5)	(6)
	Dependent variable: <i>TaxAvoid</i>					
	<u>Civil-Law</u>	<u>Common-Law</u>	<u>Low-Effective</u>	<u>High-Effective</u>	<u>Low-Quality</u>	<u>High-Quality</u>
<i>Forown_CommonLaw</i>	-0.069*** (-3.56)	0.040 (1.26)				
<i>Forown_CivilLaw</i>	0.009 (0.15)	0.041 (0.44)				
<i>Forown_HighEffect</i>			-0.105*** (-5.01)	-0.017 (-1.06)		
<i>Forown_LowEffect</i>			0.585** (2.12)	-0.201 (-1.10)		
<i>Forown_HighQuality</i>					-0.090*** (-4.21)	-0.017 (-1.04)
<i>Forown_LowQuality</i>					0.222 (0.36)	0.476 (1.29)
Constant	-0.040** (-2.47)	-0.031 (-1.23)	-0.212*** (-9.70)	-0.253*** (-19.77)	-0.147*** (-6.71)	-0.173*** (-13.11)
Controls	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES
Country FE	YES	YES	YES	YES	YES	YES
Observations	58,692	25,480	39,120	45,052	43,332	40,840
Adjusted R ²	0.273	0.0885	0.300	0.102	0.273	0.119
Coefficient difference of FIIs from high-quality institutions between two subsamples	-0.109***		-0.088***		-0.073***	
[Two-tailed p value]	[0.00]		[0.00]		[0.01]	

Notes: This table presents 2 by 2 cross-sectional results from OLS subsample regressions. *Forown_CommonLaw* (*Forown_CivilLaw*) is calculated as aggregate ownership of foreign institutional investors whose home countries are classified as common- (civil)-law countries. *Forown_HighEffect* (*Forown_LowEffect*) is calculated as aggregate ownership of foreign institutional investors whose home countries are classified as high- (low)-government-effectiveness countries. *Forown_HighQuality* (*Forown_LowQuality*) is calculated as aggregate ownership of foreign institutional investors whose home countries are classified as high- (low)-regulatory-quality countries. Column (1) uses subsample of investee firms in countries with civil law; Column (2) common law; Column (3) low government effectiveness; Column (4) high government effectiveness; Column (5) low regulatory quality; Column (6) high regulatory quality. Firm characteristics variables, as well as industry, country, and year dummies, are included, but coefficients are omitted for brevity. Numbers in parentheses are *t*-statistics computed using standard errors that are clustered at the firm level. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Table 8

Panel A. The impact of foreign institutional investors' experience

	(1)	(2)
	Dependent variable: <i>TaxAvoid</i>	
	<u>Full Sample</u>	<u>Full Sample</u>
<i>Forown_Experienced</i>	-0.030** (-2.21)	
<i>Forown_New</i>	-0.194* (-1.87)	
<i>Forown_Avoidprior</i>		0.276*** (3.77)
<i>Forown_Noavoidprior</i>		-0.052*** (-3.73)
Controls	YES	YES
Year FE	YES	YES
Industry FE	YES	YES
Country FE	YES	YES
Observations	84,172	84,172
Adj. R-squared	0.211	0.211

Notes: This table presents results from OLS regressions. *Forown_Experienced* (*Forown_New*) is calculated as aggregate ownership of foreign institutional investors who have (not) invested in the company's country in the past five years. *Forown_Avoidprior* (*Forown_Noavoidprior*) is calculated as aggregate ownership of foreign institutional investors whose invested companies' average tax avoidance change in the past five year is above (below) the median in a country in a year. Firm characteristics variables, as well as industry, country, and year dummies, are included, but coefficients are omitted for brevity. Numbers in parentheses are *t*-statistics computed using standard errors that are clustered at the firm level. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Panel B. Foreign institutional investors' voting strategy

	(1)
	Dependent variable: <i>Against</i>
<i>Dummy_TaxAvd</i>	-0.029 (-0.21)
<i>Forown</i>	0.945 (1.13)
<i>Dummy_TaxAvd* Forown</i>	1.988* (1.83)
Controls	YES
Year FE	YES
Industry FE	YES
Country FE	YES
Observations	17,748
Adj. R-squared	0.147

Notes: This table presents results from Logistic regressions in which the dependent variable is *Against*, a dummy variable equal to one if management loses a vote in a proposal and zero otherwise. The sample period is 2012 to 2016. *Dummy_TaxAvd* equals one if a firm's tax avoidance is in the top tercile of the rank in the same year and country, and zero otherwise. *Forown* is average aggregate foreign institutional ownership in each firm. Firm characteristics variables, as well as industry, country, and year dummies, are included, but coefficients are omitted for brevity. Numbers in parentheses are *t*-statistics computed using standard errors that are clustered at the firm level. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Table 9
Monitoring effects

	(1)	(2)
	Dependent variable: <i>TaxAvoid</i>	
	<u>Full Sample</u>	<u>Full Sample</u>
<i>Forown_Long</i>	-0.035** (-2.36)	
<i>Forown_Short</i>	-0.043 (-0.26)	
<i>Domown_Long</i>	0.041*** (3.06)	
<i>Domown_Short</i>	-0.039 (-0.67)	
<i>Forown_Indep</i>		-0.037*** (-2.74)
<i>Forown_Grey</i>		0.364 (0.69)
<i>Domown</i>		0.034*** (3.01)
Constant	-0.124*** (-11.51)	-0.124*** (-11.54)
Controls	YES	YES
Year FE	YES	YES
Industry FE	YES	YES
Country FE	YES	YES
Observations	84,172	84,172
Adjusted R ²	0.211	0.211

Notes: This table presents results from OLS regressions. *Forown_Long* (*Forown_Short*) is calculated as aggregate ownership of foreign institutional investors whose turnover is below (above) the median of all institutional investors in our sample. *Domown_Long* (*Domown_Short*) is calculated as aggregate ownership of domestic institutional investors whose turnover is below (above) the median of all institutional investors in our sample. *Forown_Indep* (*Forown_Grey*) is calculated as aggregate ownership of foreign institutional investors that are classified as independent (grey) institutional investors. Following Ferreira and Matos (2008), independent institutional investors are defined as mutual funds and investment advisers, while grey institutional investors are defined as bank trusts, insurance companies, and other institutions. Firm characteristics variables, as well as industry, country, and year dummies, are included, but coefficients are omitted for brevity. Numbers in parentheses are *t*-statistics computed using standard errors that are clustered at the firm level. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Table 10

Additional analyses

Panel A. Alternative tax avoidance measure and additional country level controls

	(1)	(2)
	<i>Dummy (tax avoidance)</i>	<i>TaxAvoid</i>
<i>Forown</i>	-0.260** (-2.29)	-0.057*** (-4.51)
<i>CivilLaw</i>		-0.003 (-1.02)
<i>GovEffect</i>		-0.109*** (-5.93)
<i>RegQuality</i>		0.000 (0.02)
Constant	-1.346*** (-10.35)	0.092*** (5.81)
Controls	YES	YES
Year FE	YES	YES
Industry FE	YES	YES
Country FE	YES	NO
Country*Year FE	NO	YES
Observations	84,172	84,172
Pseudo R ² /Adjusted R ²	0.0717	0.257

Notes: In Column (1), we use *Dummy (tax avoidance)* as the dependent variable. In Column (2), we control for country level variables and year-country fixed effects. All analyses include control variables (firm characteristics as well as year, industry, and country dummies) used in the baseline model but omitted for brevity. Numbers in parentheses are *z/t*-statistics computed using standard errors that are clustered at the firm level. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Panel B. US vs. non-US institutional investors

	(1)
	Dependent variable: <i>TaxAvoid</i>
	<u>Full Sample</u>
<i>Domown</i>	0.035*** (3.09)
<i>Forown_US</i>	-0.000 (-0.00)
<i>Forown_Others</i>	-0.061*** (-2.61)
Constant	-0.125*** (-11.61)
Controls	YES
Year FE	YES
Industry FE	YES
Country FE	YES
Observations	84,172
Adjusted R ²	0.211

Notes: This table provides regression result that further splits FIIs into US FIIs and non-US FIIs. All analyses include control variables (firm characteristics as well as year, industry, and country dummies) used in the baseline model but omitted for brevity. Numbers in parentheses are *z/t*-statistics computed using standard errors that are clustered at the firm level. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Appendix: Definitions of Variables

Variable Name	Description and Sources
<i>TaxAvoid</i>	Annual tax avoidance spread measured as a firm's home-country statutory tax rate less cash effective tax rate. Cash effective tax rate = Current cash tax paid/ Pretax earnings. If the current cash tax paid is missing, we replace it with total tax expense less current deferred tax (Atwood et al., 2012). A country's statutory tax rate is collected from the OECD and KPMG LLP websites. [Source: Global Compustat]
<i>Dummy (tax avoidance)</i>	An indicator that equals one if a firm's tax avoidance (<i>TaxAvoid</i>) is in the top tercile of the rank in the same year, industry, and country, and zero otherwise
<i>Totown</i>	Total institutional ownership for firm <i>i</i> at year <i>t</i> . [Source: FactSet/LionShares]
<i>Forown</i>	Aggregate ownership of foreign institutional investors. An institutional investor is classified as foreign when its headquarter is located in a different country from that of its invested firm. [Source: FactSet/LionShares]
<i>Domown</i>	Aggregate ownership of domestic institutional investors. An institutional investor is classified as domestic when its headquarter is located in the same country as that of its invested firm. [Source: FactSet/LionShares]
<i>Tax Rate</i>	Statutory tax rate for a country <i>j</i> at year <i>t</i> . [Source: the OECD, KPMG LLP websites]
<i>Size</i>	Book value of assets (in US\$ million) at the end of year <i>t</i> . [Source: Global Compustat]
<i>Leverage</i>	Book value of debts scaled by assets ((dltt + dlc)/at). [Source: Global Compustat]
<i>ROA</i>	Operating income scaled by assets (ebit/at). [Source: Global Compustat]
<i>Sales Growth</i>	Annual sales' growth rate ((sale/sale _{<i>t-1</i>}) - 1). [Source: Global Compustat]
<i>R&D</i>	Research and development expenditure scaled by assets (xrd/at). [Source: Global Compustat]
<i>Accrual</i>	Discretionary accruals measured as residuals from the discretionary accrual model (Kothari et al., 2005). [Source: Global Compustat]
<i>Foreign Operations</i>	An indicator that equals one if a firm has nonzero foreign sales, and zero otherwise. [Source: Global Compustat]
<i>MSCI Inclusion</i>	An indicator that equals one if a firm's stock is included in the MSCI index in a given year <i>t</i> , and zero otherwise. [Source: http://www.msci.com/products/indexes]
<i>CivilLaw</i>	An indicator that equals one if a country's legal system is based on civil law, and zero if common law. [Source: La Porta et al. (1998)]
<i>GovEffect</i>	Reflects perceptions of the quality of public services, the quality of the civil services and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies (-2.5 (worst) ≤ Value ≤ +2.5 (best)). [Source: World Governance Indicators]
<i>RegQuality</i>	Reflects perceptions of the government's ability to formulate and implement sound policies and regulations that permit and promote private sector development (-2.5 (worst) ≤ Value ≤ +2.5 (best)). [Source: World Governance Indicators]