Distracted institutional shareholders and corporate tax avoidance

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**DISTRACTED INSTITUTIONAL SHAREHOLDERS
AND CORPORATE TAX AVOIDANCE**

YU HANG

NANYANG BUSINESS SCHOOL

2021

**DISTRACTED INSTITUTIONAL SHAREHOLDERS
AND CORPORATE TAX AVOIDANCE**

YU HANG

Nanyang Business School

A thesis submitted to the Nanyang Technological University
in partial fulfilment of the requirement for the degree of
Doctor of Philosophy

2021

Statement of Originality

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A rectangular box containing a handwritten signature in black ink. The signature appears to be 'Hang Yu' written in a cursive style.

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YU Hang

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Summary

Nonconforming tax avoidance (i.e., strategies that reduce taxable *but not* book income) has been extensively studied in accounting research, yet conforming tax avoidance (i.e., strategies that reduce taxable *and* book income) receives scant attention. To fill the void, I examine institutional shareholder distraction as one determinant of nonconforming and conforming tax avoidance. Using exogenous shocks to unrelated parts of institutional shareholders' portfolios, I find that institutional shareholder distraction has a negative (null) effect on conforming (nonconforming) tax avoidance. Consistent with institutional shareholder distraction exacerbating agency problems, its negative effect on conforming tax avoidance is alleviated by board monitoring. I further identify the effort aversion channel by showing that this negative effect is mitigated by managerial ability. My study establishes one corporate tax avoidance determinant that only affects conforming tax avoidance, thereby underscoring the importance of simultaneous examination of nonconforming and conforming tax avoidance.

Keywords: Nonconforming tax avoidance; Conforming tax avoidance; Institutional investors; Agency problems

JEL Classification: G23; G34; H26

1. Introduction

Corporate tax avoidance is defined broadly as the reduction of explicit taxes by firms, and reflects all transactions that affect the firm's explicit tax liability (Hanlon and Heitzman, 2010). It can be achieved by strategies that reduce taxable *but not* book income (i.e., financial statement income). Such strategies lower income tax payments in a book-tax nonconforming manner, and therefore are termed nonconforming tax avoidance. Alternatively, corporate tax avoidance can be accomplished by strategies that reduce taxable *and* book income. These strategies lower income tax payments in a book-tax conforming manner, and therefore are termed conforming tax avoidance.

Corporate tax avoidance has been an increasingly studied topic of accounting research since Shackelford and Shevlin (2001) and Hanlon and Heitzman (2010)'s call for more research on the determinants of corporate tax avoidance and Weisbach (2002)'s recognition of the undersheltering puzzle.¹ Most studies of this growing research use tax avoidance measures based on effective tax rate and/or book-tax difference, which by construction only capture nonconforming tax avoidance. Thus, nonconforming tax avoidance is the focus of the literature, while conforming tax avoidance receives scant attention. Moreover, except Badertscher, Katz, Rego, and Wilson (2019), no other study, to my best knowledge, examines determinants of nonconforming and conforming tax avoidance simultaneously.² To fill this void, I investigate if, and if so, how limited attention of institutional investors affects nonconforming and conforming tax avoidance. Specifically, I concurrently examine the effect of institutional shareholder distraction on nonconforming and conforming tax avoidance.

¹ Weisbach (2002) asks "why any business pays tax at all" given the irresistible economics of fully exploiting tax shelters and the abundant availability of shelters.

² Badertscher et al. (2019) create a broad measure of conforming tax avoidance and examine capital market pressure as one determinant of nonconforming and conforming tax avoidance. The scarcity of research on conforming tax avoidance is attributable, at least in part, to the lack of a broad measure of conforming tax avoidance prior to Badertscher et al. (2019).

This research question is important. First, to thoroughly understand corporate tax avoidance and the undersheltering puzzle, it is crucial to concurrently examine nonconforming and conforming tax avoidance (Badertscher et al., 2019). This is because inferences drawn solely from evidence based on nonconforming tax avoidance may not hold for overall tax avoidance. For instance, observation of a high effective tax rate or low book-tax difference of a firm can potentially lead to the conclusion that the firm is not avoiding taxes while the firm is in fact actively engaging in conforming tax avoidance. In this case, the firm's overall tax avoidance is underestimated. Thus, examining nonconforming tax avoidance exclusively while overlooking conforming tax avoidance could lead to incorrect conclusions on corporate tax avoidance. Echoing this concern, Badertscher et al. (2019) show that incorporation of evidence based on conforming tax avoidance can affect some inferences of prior studies.³

Second, by focusing on institutional investors, a major class of shareholders who influence agency problems inherent in public firms, the research question is in response to prominent scholars' call for further tax avoidance research within an agency context (Desai and Dharmapala, 2006; Erickson et al., 2020).

Due to the manager-shareholder conflict of interest, managers have incentives to act in their best interest at the expense of shareholders, giving rise to agency problems such as managerial effort aversion and rent extraction (Berle and Means, 1932; Jensen and Meckling, 1976). Shareholder monitoring alleviates agency problems. In particular, institutional shareholders are effective monitors (e.g., Bushee, 1998; Chen, Harford, and Li, 2007; Hartzell and Starks, 2003), and influence management via "voice" and "exit" mechanisms (Hirschman, 1970). The monitoring and influencing by institutional shareholders require their attention,

³ Specifically, Badertscher et al. (2019) find that family firms, relative to non-family firms, engage in less nonconforming, but more conforming, tax avoidance, suggesting that family firms do not necessarily conduct less corporate tax avoidance overall. This inference is in contrast to that of Chen, Chen, Cheng, and Shevlin (2010), who examine nonconforming tax avoidance only but conclude that family firms undertake less corporate tax avoidance.

which is a limited cognitive resource (e.g., Baker and Wurgler, 2013; Kahneman, 1973; Lim and Teoh, 2010). Therefore, institutional shareholders supply less monitoring when distracted (Kempf, Manconi, and Spalt, 2017).

On one hand, reduced monitoring by distracted institutional shareholders can aggravate managerial effort aversion. Tax avoidance strategies demand substantial managerial effort (Guan, Li, Ye, and Zhuang, 2018). To carry out tax avoidance strategies, managers first need to identify tax avoidance opportunities, which requires managerial effort to have a comprehensive understanding of their firms and tax laws. Further, implementation of tax avoidance strategies consumes managerial effort, especially for strategies involving external consultation and/or internal coordination. Therefore, the effort aversion channel predicts that managers engage in less nonconforming and conforming tax avoidance when institutional shareholders are distracted.

On the other hand, reduced monitoring by distracted institutional shareholders can exacerbate managerial rent extraction (e.g., Kempf et al., 2017; Liu, Low, Masulis, and Zhang, 2020). Desai, Dyck, and Zingales (2007) model the complementarity between rent extraction and nonconforming tax avoidance.⁴ Underlying this complementarity is the complex, obfuscating nature of nonconforming tax avoidance strategies, which can be exploited by managers to enable and mask rent extraction, as exemplified by the accounting scandals of Enron and Dynegy (Desai and Dharmapala, 2006, 2009b).⁵ Although reduced monitoring by distracted institutional shareholders may diminish managers' need to shield rent extraction and thus weakens the complementarity between rent extraction and nonconforming tax avoidance, I expect managers to engage in more nonconforming tax avoidance to the extent that the

⁴ See Section 2.1 for a review of empirical studies that lend support to the complementarity between rent extraction and nonconforming tax avoidance.

⁵ Although nonconforming tax avoidance does not directly harm shareholders, it can be employed to mislead shareholders about managers' underlying intent when managers extract rents. This is considered an agency cost accompanying nonconforming tax avoidance. Nonconforming tax avoidance harms shareholders when the costs exceed the benefits.

complementarity is not annihilated as managers still have incentives to conceal rent extraction due to other disciplining mechanisms, e.g., board of directors, analysts, and regulators.

In contrast, how managerial rent extraction affects conforming tax avoidance hinges on the form of rent extraction. If managers extract rents via earnings management, I expect managers to engage in less conforming tax avoidance because reducing conforming tax avoidance facilitates such rent extraction by artificially boosting book income and earnings in the current period for managers to extract higher compensation or benefit from temporarily inflated stock price through insider trading.⁶ However, the level of conforming tax avoidance can be higher if managers commit other forms of rent extraction, e.g., overinvestment for empire building, related-party transactions, or perk consumptions.⁷

These predictions rely on the change in managerial effort aversion or rent extraction. However, managers' effort aversion and rent extraction may not react to institutional shareholder distraction if they are deterred by the expectation of *ex post* detection of and punishment for effort aversion and rent extraction when institutional shareholders are less or not distracted. If this is the case, neither effort aversion nor rent extraction is a channel through which institutional shareholder distraction affects corporate tax avoidance.

In light of Badertscher et al. (2019)'s finding that nonconforming (conforming) tax avoidance is increasing (decreasing) in capital market pressure, the capital market pressure channel predicts that managers engage in less (more) nonconforming (conforming) tax avoidance to the extent that institutional shareholder distraction lowers capital market pressure.

⁶ Reducing conforming tax avoidance leads to higher earnings because the associated increase in book income exceeds the associated increase in tax payments.

⁷ If managers exert discretion to opportunistically overinvest for empire building, conduct related-party transactions, or consume perks near the tax year end or in the year experiencing a tax rate increase, managers are using conforming tax avoidance to divert corporate resources to their own pockets.

With the competing directions of the above predictions, whether and how institutional shareholder distraction affects nonconforming and conforming tax avoidance is an empirical question.

To answer this question, I simultaneously test the effect of institutional shareholder distraction on nonconforming and conforming tax avoidance by adopting the seemingly unrelated regressions (SUR) model,⁸ which includes one main measure of nonconforming tax avoidance (i.e., cash effective tax rate), Badertscher et al. (2019)'s measure of conforming tax avoidance, and Kempf et al. (2017)'s measure of institutional shareholder distraction.

Using 5,907 firm-year observations in the period 1987-2010,⁹ I find that institutional shareholder distraction has a negative (null) effect on conforming (nonconforming) tax avoidance. The negative effect of institutional shareholder distraction on conforming tax avoidance is both statistically and economically significant.¹⁰ A one standard deviation increase in institutional shareholder distraction leads to a reduction of 27.77% in conforming tax avoidance. Consistent with institutional shareholder distraction exacerbating agency problems, its negative effect on conforming tax avoidance is alleviated by board monitoring. These results are in line with the effort aversion channel and the rent extraction via earnings management channel.

Further, I identify the effort aversion channel by showing that managerial ability mitigates the negative effect of institutional shareholder distraction on conforming tax avoidance. First, this evidence is consistent with the effort aversion channel because managerial ability can compensate for effort reduction, thereby offsetting the reduction in

⁸ Compared to the equation-by-equation ordinary least squares (OLS) estimation, the SUR model is more appropriate because it admits cross-equation correlation between error terms and because a subset of explanatory variables are the same (Beasley, 2008).

⁹ To ensure data precision, I directly use Kempf et al. (2017)'s distraction data covering the period 1980-2010, which is accessible via <https://sites.google.com/site/elikempf/research>. Additional data requirement for other variables results in the sample period 1987-2010.

¹⁰ I hereafter focus on the effect of institutional shareholder distraction on conforming tax avoidance because I observe no effect on nonconforming tax avoidance.

conforming tax avoidance brought about by effort reduction. Second, the evidence is inconsistent with the rent extraction via earnings management channel. This is because managerial ability, by enabling and facilitating rent extraction, should amplify the negative effect on conforming tax avoidance as high-ability managers reduce more conforming tax avoidance when extracting more rents via earnings management. This argument is in line with award-winning CEOs, as high-ability managers, extracting more rents (Malmendier and Tate, 2009).

My results are robust to equation-by-equation ordinary least squares (OLS) estimation, alternative fixed effects, an alternative measure of institutional shareholder distraction, alternative measures of nonconforming and conforming tax avoidance, an alternative measure of managerial ability, and inclusion of earnings management as an additional control.

My study contributes to the corporate tax avoidance literature. Among the earliest studies that simultaneously examine the determinants of nonconforming and conforming tax avoidance, my study is the first, to my best knowledge, that identifies one determinant that only affects conforming tax avoidance. Moreover, my study expands the line of research within an agency context (e.g., Chen et al., 2010; Chen, Huang, Li, and Shevlin, 2019; Desai and Dharmapala, 2006; Khan, Srinivasan, and Tan, 2017). In particular, Khan et al. (2017) and Chen et al. (2019) use Russell index reconstitutions and show a positive effect of institutional ownership on nonconforming tax avoidance. My study meaningfully extends these papers in two important ways. First, I examine conforming tax avoidance in addition to nonconforming tax avoidance. Second, I control for institutional ownership and its concentration throughout my study. By doing so, I document the impact of institutional shareholder distraction that is incremental to the impact of institutional ownership structure.

My study also contributes to the limited attention literature (e.g., Baker and Wurgler, 2013; Fang, Peress, and Zheng, 2014; Kacperczyk, Van Nieuwerburgh, and Veldkamp, 2016;

Lim and Teoh, 2010) by directly addressing an important open question raised by Baker and Wurgler (2013): *what is the impact of investor inertia and limited attention on corporate finance?* Further, my study complements prior research on institutional investor distraction (e.g., Abramova, Core, and Sutherland, 2020; Kempf et al., 2017; Liu et al., 2020), which shows managerial rent extraction, by adding evidence of managerial effort aversion.

Finally, my study is of interest to capital market participants, policymakers, tax authorities, and scholars. If I only examined nonconforming tax avoidance, I would have concluded that institutional shareholder distraction has no effect on corporate tax avoidance when it in fact decreases conforming tax avoidance. My study highlights the importance of simultaneous examination of nonconforming and conforming tax avoidance for a thorough understanding of corporate tax avoidance and for a more comprehensive consideration of policy and regulation implications for corporate tax avoidance.

The rest of the paper proceeds as follows. Section 2 provides background information on corporate tax avoidance and develops hypotheses. Section 3 describes the research design. Section 4 delineates sample and data. Section 5 presents the empirical results. Section 6 conducts robustness checks. Finally, Section 7 concludes.

2. Background and Hypothesis Development

2.1 Nonconforming and Conforming Tax Avoidance

Depending on its effect on financial statement income (i.e., book income), corporate tax avoidance is categorized into nonconforming and conforming tax avoidance (Badertscher et al., 2019). Nonconforming tax avoidance does not lower book income while conforming tax avoidance reduces book income.

Examples of nonconforming tax avoidance strategies include offshore tax sheltering, municipal bond investment, bonus depreciation, and structured transactions exploiting

different book and tax treatment. Offshore tax sheltering is the practice of shifting profits to countries with lower tax rates. Municipal bond investment has tax benefits because income from municipal bonds is tax-free at the federal level. Bonus depreciation, while not applicable to financial statements, allows firms to reduce taxable income by immediately deducting a large percentage (up to 100%) of the cost of eligible assets. One high-profile example of structured transactions exploiting different book and tax treatment is Enron's Project Tanya, which enabled the company to report a capital loss of almost \$200 million on its 1995 tax return while not incurring a corresponding loss on the financial statement (Congress, 2003). This is also a stylized example of managers taking advantage of the complexity and obfuscation of nonconforming tax avoidance strategies to shield their rent extraction behavior (Desai and Dharmapala, 2006).

Examples of conforming tax avoidance strategies include acceleration of certain expenses (e.g., R&D and SG&A expenses) to the current period, acceleration of sale of assets that incurs recognized loss (e.g., sale of an unprofitable operating division) to the current period, conversion from FIFO (first in, first out) to LIFO (last in, first out),¹¹ and prepayment of financing costs (for debt contracts structured to require upfront payment of financing costs) (Badertscher et al., 2019).¹² For a transaction to be identified as a conforming tax avoidance strategy, it is crucial to be for tax purposes. If a firm experiences a big loss and the loss is a result of discretionary decisions (e.g., increased spending on certain expenses near the tax year end and/or deferral of revenue), then reporting the loss is consistent with the notion of conforming tax avoidance. If the loss is due to macroeconomic conditions or industry shocks,

¹¹ Inventory costs are assumed to be rising over time, thereby causing cost of goods sold (COGS) to be higher after the conversion and resulting in a lower book income.

¹² Conforming tax avoidance is related to real earnings management. Badertscher et al. (2019) find that their conforming tax avoidance measure is associated with the three real earnings management proxies developed by Roychowdhury (2006): (1) discretionary changes in cash flow operations; (2) discretionary changes in production; and (3) discretionary expenses. Conforming tax avoidance is also related to conservative accounting. Taxation is one of the four explanations for accounting conservatism provided by Watts (2003). Basu (2005) suggests that unconditional conservatism is likely a response to tax incentives. Qiang (2007) finds that taxation induces unconditional conservatism.

then reporting the loss is not for tax purposes and is therefore not conforming tax avoidance; however, if managers exert discretion over reporting the loss, e.g., shifting the loss to the next year with a higher tax rate, then this strategic reporting is conforming tax avoidance.

Despite their differential effects on book income, both nonconforming and conforming tax avoidance strategies reduce cash taxes paid. For example, assuming a corporate income tax rate of 35 percent, the nonconforming tax avoidance strategy of applying bonus depreciation of \$1,000 reduce cash taxes paid by \$350, as does the conforming tax avoidance strategy of prepaying financing costs of \$1,000.

Various measures of nonconforming tax avoidance exist in the literature. Widely used are effective tax rate-based measures such as GAAP ETR and Cash ETR. GAAP ETR is defined as the ratio of total tax expense to pretax income, and gains its name because it is required by the Securities and Exchange Commission to be disclosed in the tax footnotes of financial statements. Cash ETR is defined as the ratio of cash taxes paid to pretax income. These two measures differ from each other in two important ways. First, since the numerator of GAAP ETR adjusts for deferred tax expense that gives rise to temporary book-tax differences (i.e., reversible differences caused by different recognition timings), GAAP ETR only captures permanent book-tax differences, which will not reverse in the future. In comparison, Cash ETR additionally captures temporary book-tax differences. Second, GAAP ETR can be distorted if its numerator is affected by tax accruals irrelevant to tax avoidance while Cash ETR is immune to such distortion because its numerator is not affected by tax accruals.¹³

Another major category of nonconforming tax avoidance measures is based on book-tax difference. Total book-tax difference is calculated as the difference between book income

¹³ Changes in the tax contingency reserve, which can be unrelated to tax avoidance, is incorporated in total tax expense.

and estimated taxable income, thus capturing temporary and permanent book-tax differences. Manzon and Plesko (2002) book-tax difference is calculated as the difference between adjusted U.S. domestic income and estimated U.S. domestic taxable income.¹⁴ Desai and Dharmapala (2006) book-tax difference is the residual from a regression of Manzon and Plesko (2002) book-tax difference on total accruals to purge the book-tax differences arising from earnings management.

Unlike nonconforming tax avoidance, conforming tax avoidance lacked a broad empirical measure for a long time until Badertscher et al. (2019) developed one. Conceptually, their conforming tax avoidance measure is the residual of standardized income tax payments after the impact of nonconforming tax avoidance strategies is removed.¹⁵

In line with the classification of corporate tax avoidance into nonconforming and conforming tax avoidance, corporate tax avoidance literature is divided into two streams: one on nonconforming tax avoidance and the other on conforming tax avoidance.

Nonconforming tax avoidance has been extensively studied in accounting research, and there are two views on nonconforming tax avoidance. The traditional view holds that nonconforming tax avoidance represents a resource transfer from the state to shareholders,¹⁶ and assumes that firms do not incorporate agency costs into their tax reporting decisions.

In comparison, the agency perspective acknowledges that agency issues inherent in public firms complicates the compliance of corporate taxpayers (Slemrod, 2004). Chen and Chu (2005) and Crocker and Slemrod (2005) examine nonconforming tax avoidance using the principal-agent framework, and, together with Slemrod (2004), lay the theoretical foundation for the agency perspective. Under this perspective, if nonconforming tax avoidance creates

¹⁴ U.S. domestic income is adjusted for current state and other income taxes, which are deductible in determining federal taxable income, and for equity in earnings, which is not included in taxable income.

¹⁵ Details on the construction of this conforming tax avoidance measure are described in the Research Design Section.

¹⁶ Nonconforming tax avoidance can benefit shareholders by boosting earnings and stock price. Shareholders may also receive more dividends after earnings are boosted.

value, firm owners should structure incentives to ensure that managers conduct nonconforming tax avoidance whenever the marginal benefits exceed the marginal costs. The incentives can be based on tax outcomes or contracts that link compensation to after-tax performance and/or stock price. Consistent with this notion, Phillips (2003) and Gaertner (2014) show that nonconforming tax avoidance is increasing in the after-tax compensation incentives of business-unit managers and CEOs, respectively.

In addition, Desai et al. (2007) emphasize managerial rent extraction as one major agency cost accompanying nonconforming tax avoidance, and model a complementarity between managerial diversion and nonconforming tax avoidance based on the complex and obfuscating nature of nonconforming tax avoidance activities that can be used to shield managerial diversion.¹⁷ Extending this theory, Desai and Dharmapala (2006) model the effect of compensation incentives and corporate governance on nonconforming tax avoidance, and find that higher equity incentives are associated with less nonconforming tax avoidance with the association primarily driven by firms with relatively weak governance. The finding is consistent with the complementarity between managerial diversion and nonconforming tax avoidance: increased equity incentives, by alleviating manager-shareholder conflict of interest, reduce managerial diversion, thereby reducing nonconforming tax avoidance. Compared to well governed firms, poorly governed firms have more scope for the reduction in managerial diversion, and hence more scope for the reduction in nonconforming tax avoidance, which leads to the documented negative association. In further support of the complementarity between managerial diversion and nonconforming tax avoidance, Desai and Dharmapala (2009a) show that the effect of nonconforming tax avoidance on firm value is, on average, zero

¹⁷ I use managerial diversion and managerial rent extraction interchangeably.

but positive for firms with relatively strong governance, in which managerial diversion is mitigated.¹⁸

As pointed out by Desai and Dharmapala (2008), ownership patterns can have implications for corporate incentives to avoid taxes. For example, Mills and Newberry (2001) provide evidence that public firms, relative to private firms, conduct more nonconforming tax avoidance, consistent with public firms subject to more financial reporting costs. Chen et al. (2010) show that family firms exhibit a lower level of nonconforming tax avoidance than their non-family counterparts, consistent with family firms more concerned about minority shareholders' suspicion of managerial diversion masked by nonconforming tax avoidance activities. McGuire, Wang, and Wilson (2014) document that dual class firms' nonconforming tax avoidance is decreasing in the wedge between insiders' voting rights and cash flow rights, consistent with the wedge entrenching managers and allowing them to perform suboptimally. Further, Khan et al. (2017) and Chen et al. (2019) use the setting of Russell index reconstitutions and show that institutional ownership increases nonconforming tax avoidance. Both papers argue that institutional shareholders push for improvement in overall firm performance and need not promote tax avoidance specifically and explicitly. Notably, Chen et al. (2019) also argue that an increase in institutional ownership incentivizes managers to engage in more nonconforming tax avoidance by alleviating managerial effort aversion and shareholders' concern over managerial rent extraction enabled and shielded by nonconforming tax avoidance.¹⁹ Moreover, Chen et al. (2019) provide empirical evidence that institutional ownership increases pretax financial performance, lending support to their argument that institutional shareholders demand improvement in overall firm performance.

¹⁸ Shareholders price protect themselves if they perceive the costs of nonconforming tax avoidance to outweigh the benefits.

¹⁹ The implicit assumption in their study is that corporate tax avoidance requires considerable managerial effort. When developing my hypotheses, I provide some arguments in support of this assumption.

In comparison to the literature on nonconforming tax avoidance, research on conforming tax avoidance is limited. This is because, at least in part, there was no broad measure of conforming tax avoidance until recently.

Cloyd, Pratt, and Stock (1996)'s survey evidence shows that public firms, compared to private firms, are less likely to use conforming tax avoidance. Exploiting the Tax Reform Act of 1986 that gradually cut the statutory federal corporate income tax rate from 46 percent in 1986 to 34 percent in 1988, Scholes, Wilson, and Wolfson (1992), Guenther (1994), and Maydew (1997) find that firms shifted income and losses to take advantage of the tax rate reduction. They refer to the shifting as tax-induced earnings management. Due to their assumption that the shifting was conducted in a book-tax conforming manner, I refer to the shifting as conforming tax avoidance following Badertscher et al. (2019).

Badertscher et al. (2019) create a broad empirical measure of conforming tax avoidance. They confirm its validity by analyses using simulations, LIFO/FIFO conversions, and samples of public and private firms. Applying this measure, they find that capital market pressure is positively (negatively) associated with nonconforming (conforming) tax avoidance.

2.2 Hypothesis Development

The principal-agent framework by Berle and Means (1932) and Jensen and Meckling (1976) forms the foundation for my hypothesis development regarding the effect of institutional shareholder distraction on nonconforming and conforming tax avoidance.

Agency theory predicts that managers, as agents, have incentives to act in their best interest at the expense of shareholders, the principals, when there is a conflict of interest between principals and agents. Managers can exhibit effort aversion behavior as they have disincentives to undertake value-maximizing projects if too much trouble or effort is required on their part (Jensen and Meckling, 1976). For example, Bertrand and Mullainathan (2003) show that managers may enjoy the quiet life. Managers can also exhibit rent extraction

behavior, e.g., earnings management, empire building, related-party transactions, and perk consumption.

Shareholder monitoring alleviates agency problems. With shareholder monitoring, managers trade off the benefits of acting in their best interest and the costs imposed by the monitoring. As a consequence, shareholder monitoring induces managers to maximize shareholder value.

Institutional shareholders are effective monitors (e.g., Bushee, 1998; Chen et al., 2007; Hartzell and Starks, 2003). They monitor and influence managers via “voice” and “exit” mechanisms (Hirschman, 1970). The “voice” mechanism enables institutional investors to have their concerns heard by management. It can take forms such as voting against management, having private conversations with management, publishing statements in the press, and submitting proposals. The “exit” mechanism disciplines managers by threatening to sell the company’s shares.

To exert monitoring and influence over a firm, institutional shareholders must pay attention to the firm. However, the theory of limited attention posits that attention is a limited cognitive resource, not unbounded even for sophisticated capital market participants. For example, Fang et al. (2014) show that fund managers persistently tend to buy media-covered stocks more heavily than stocks not covered by media, consistent with fund managers attracted by media coverage paying less or no attention to stocks without media coverage. In particular, Kempf et al. (2017) show that institutional shareholders supply less monitoring when they are distracted and shift attention away.

On one hand, less monitoring supplied by distracted institutional shareholders can heighten managerial effort aversion. Both nonconforming and conforming tax avoidance require considerable managerial effort (e.g., Guan et al., 2018). First, managers need to spend effort identifying tax avoidance opportunities as such identification requires managers to have

a comprehensive understanding of firm operations and applicable tax laws. Second, implementation of tax avoidance strategies is effort consuming because it often necessitates external consultation and internal coordination among different departments such as the accounting and tax departments. Consistent with these arguments, Guan et al. (2018) find that effort averse managers with stronger preference for leisure engage in less nonconforming tax avoidance. Therefore, I expect both nonconforming and conforming tax avoidance to decrease when the severity of managerial effort aversion increases. It follows that nonconforming and conforming tax avoidance are decreasing in institutional shareholder distraction.

On the other hand, less monitoring supplied by distracted institutional shareholders can exacerbate managerial rent extraction. For example, Kempf et al. (2017) show that firms with distracted institutional shareholders are more likely to announce diversifying but value-destroying acquisitions, to grant opportunistically timed stock options, and to cut dividends. Liu et al. (2020) find that managers manage earnings upward and are more likely to receive high abnormal pay when institutional shareholders are distracted.

Based on the complexity and obfuscation as the critical characteristics of nonconforming tax avoidance strategies, Desai et al. (2007) model the complementarity between rent extraction and nonconforming tax avoidance. Desai and Dharmapala (2006, 2009b) argue that managers can exploit the complex, obfuscating nature of nonconforming tax avoidance strategies to enable and shield rent extraction. The accounting scandals of Enron and Dynegy are two stylized high-profile examples of how managers mask rent extraction using nonconforming tax avoidance.²⁰ Although the complementarity between rent extraction and nonconforming tax avoidance may be weakened by institutional shareholder distraction as managers have less need to conceal rent extraction when subject to less monitoring, I expect managers to increase nonconforming tax avoidance to the extent that the complementarity is

²⁰ See Desai and Dharmapala (2006) for a detailed description.

not eliminated as managers still have incentives to mask their rent seeking behavior due to other disciplining mechanisms, e.g., board of directors, analysts, and regulators.

In comparison, the association between rent extraction and conforming tax avoidance is contingent on the form of rent extraction. If managers extract rents via earnings management, I expect managers to reduce conforming tax avoidance because reduction in conforming tax avoidance promotes this form of rent extraction as it increases book income and earnings in the current period so that managers can reap higher compensation or make private gains through insider trading when the stock price is artificially inflated.²¹ This prediction is also consistent with Kempf et al. (2017) and Liu et al. (2020)'s evidence of higher likelihood of lucky option grants and upward earnings management, respectively. If managers extract rents via other forms of rent extraction, e.g., overinvestment for empire building, related-party transactions, or perk consumptions, firms can exhibit an increased level of conforming tax avoidance.

Critical in these predictions is the intensification of managerial effort aversion or rent extraction in response to institutional shareholder distraction. If effort aversion (rent extraction) does not react to institutional shareholder distraction as managers are deterred by the expectation that they will be penalized for effort aversion (rent extraction) once detected when institutional shareholders are less or not distracted, then effort aversion (rent extraction) may not be a channel underlying the effect of institutional shareholder distraction on nonconforming and conforming tax avoidance, if any.

Since nonconforming (conforming) tax avoidance is increasing (decreasing) in capital market pressure (Badertscher et al., 2019), I expect managers to decrease (increase) nonconforming (conforming) tax avoidance to the extent that capital market pressure is lower when institutional shareholders are distracted.

²¹ Reduction in conforming tax avoidance boosts earnings because corporate income tax rate is less than 100%.

Consolidation of the above predictions with differing directions makes it unclear whether and how institutional shareholder distraction affects nonconforming and conforming tax avoidance. Accordingly, I develop nondirectional hypotheses and empirically investigate them:

H1a: Nonconforming tax avoidance is associated with institutional shareholder distraction.

H1b: Conforming tax avoidance is associated with institutional shareholder distraction.

3. Research Design

3.1 Measuring Institutional Shareholder Distraction

I follow Kempf et al. (2017) and measure institutional shareholder distraction based on the extent to which the institutional shareholders of a firm are distracted as they shift attention away from the focal firm to the unrelated parts of their portfolios. Conceptually, the distraction measure aggregates the following components: (1) identification of attention-grabbing industries *other than* the focal firm's industry; (2) quantification of how much the institutional investors care about those industries; and (3) quantification of how important the institutional investors are to the focal firm.

To identify the industries in which there is an attention-grabbing event (referred to as an industry shock), I construct a shocked industry indicator, denoted by IS_q^{IND} . It is equal to one if the industry IND experiences the highest or lowest return among all 12 Fama-French industries in the calendar quarter q , and zero otherwise. Further, I restrict the shocked industries to those other than the focal firm f 's industry (i.e., $IND \neq IND_f$). This restriction provides an important advantage: the industry shocks identified in this way are not mechanically related to the focal firm's fundamentals.

Next, to quantify how much a given institutional investor i cares about a shocked industry IND (i.e., $IS_q^{IND} = 1$), I compute the industry weight in the portfolio held by the investor i in the previous quarter $q-1$ and denote it by $w_{i,q-1}^{IND}$.

Last, to quantify how important the institutional shareholder i is to the focal firm f , I incorporate (1) the extent to which the shareholder i spends time and effort on the firm and (2) the extent to which the firm cares about the shareholder i .²² The former is captured by the market value weight of the firm f in the shareholder i 's portfolio ($PFweight_{i,f,q-1}$),²³ and the latter is captured by the fraction of the firm f 's shares held by the shareholder i ($PercOwn_{i,f,q-1}$). To minimize measurement error and to remove the impact of outliers, I sort $PFweight_{i,f,q-1}$ and $PercOwn_{i,f,q-1}$ into quintiles $QPFweight_{i,f,q-1}$ and $QPercOwn_{i,f,q-1}$, respectively. To incorporate these two factors, I construct the weight variable as follows:

$$w_{i,f,q-1} = \frac{QPFweight_{i,f,q-1} + QPercOwn_{i,f,q-1}}{\sum_{i \in F_{q-1}} (QPFweight_{i,f,q-1} + QPercOwn_{i,f,q-1})}.$$

The denominator is to normalize the sum of $w_{i,f,q-1}$ over the set of the institutional shareholders of the firm f as of the calendar quarter $q-1$, denoted by F_{q-1} .

Aggregating the three components operationalized as above, I derive the quarterly measure of institutional shareholder distraction for the firm f in the calendar quarter q ($DISTRACTION_{f,q}$):

$$DISTRACTION_{f,q} = \sum_{i \in F_{q-1}} \sum_{IND \neq IND_f} w_{i,f,q-1} \times w_{i,q-1}^{IND} \times IS_q^{IND}.$$

The annual measure for the firm f in the fiscal year t ($DISTRACTION_{f,t}$) is calculated as the average of the corresponding quarterly measure over the four quarters immediately prior to the

²² If a shareholder spends more time and effort on a firm, the shareholder is able to exert more influence on the firm, increasing the shareholder's importance to the firm. If the firm cares more about the shareholder, the shareholder is more important to the firm.

²³ Investors spend more time and effort on larger positions in their portfolios (Fich, Harford, and Tran, 2015).

fiscal year end. Following prior research, I set this annual measure to be missing for any firm-year observation where there is an industry shock in any quarter of the year.²⁴

Kempf et al. (2017) provide direct evidence that both the quarterly measure and the annual measure indeed captures institutional shareholder distraction. Specifically, they show that institutional shareholders participate in fewer conference calls and submit fewer proposals when the value of *DISTRACTION* is higher.

This measure captures *exogenous* variation in firm-level institutional shareholder distraction because the underlying industry shocks take place in industries other than the focal firm's industry. Further, the industry shocks are likely to be random events and unlikely to cause large portfolio rebalancing (Liu et al., 2020). This is consistent with Kempf et al. (2017)'s evidence that distracted institutional shareholders make smaller changes in portfolio holdings, and the focal firm's portfolio weight is less likely to be changed significantly. Therefore, observed corporate outcomes are unlikely to be attributable to changes in portfolio holdings by distracted institutional shareholders.

Liu et al. (2020) find that each quarterly industry shock has an average duration of 1.25 quarters. Kempf et al. (2017) provide some prominent examples of longer-term industry shocks: the Dot-com bubble (2000Q1), the banking crisis (2007Q4), and the Gulf of Mexico oil spill (2010Q2). While some industry shocks last for longer periods, this is not a necessary condition for these distraction events to have a prolonged effect (Kempf et al., 2017). First, some industry shocks, even if they have short durations, can attract institutional shareholders' attention for extended periods if these shocks take time to be fully understood or result in changes in the relative marginal benefits of attention supply that prompt institutional shareholders to reoptimize attention allocation (Kempf et al., 2017). Second, institutional shareholders may

²⁴ This treatment prevents my results from being driven by extreme performance in the shocked industries. Moreover, it preserves the exogenous nature of industry shocks to the focal firm for each entire fiscal year.

pay insufficient attention to nonshocked industries for a longer time as they can be distracted by a series of quarterly industry shocks (Liu et al., 2020). Liu et al. (2020) find that the average duration of institutional shareholder distraction is 7 quarters.

A number of studies (e.g., Abramova et al., 2020; Liu et al., 2020) have used Kempf et al. (2017)'s distraction measure to infer *causal* evidence of managerial strategic behavior including rent extraction.²⁵

3.2 Measuring Nonconforming and Conforming Tax Avoidance

I follow Badertscher et al. (2019) and use cash effective tax rate (*CASH_ETR*), the ratio of cash taxes paid to pretax income, as the main measure of nonconforming tax avoidance.²⁶ Following prior studies, I truncate the measure to the range [0,1]. Since a higher value of *CASH_ETR* indicates a lower level of nonconforming tax avoidance, I multiply it by -1 after truncation for a more direct interpretation of results.

I follow Badertscher et al. (2019) and construct the conforming tax avoidance measure based on the ratio of cash taxes paid to lagged total assets (*TAXESPAID_TO_ASSETS*). The numerator captures income tax payments and is not distorted by tax accruals that can affect book but not taxable income. The denominator standardizes the numerator to enable cross-firm comparison and is immune to current-period transactions such as earnings management.²⁷

Since both nonconforming and conforming tax avoidance reduce *TAXESPAID_TO_ASSETS*, I orthogonalize the ratio to total book-tax difference to eliminate

²⁵ The accounting literature's abundance of evidence of managerial strategic behavior and misconduct suggests that managers' expectation of *ex post* detection and penalization by shareholders can only partially deter managers at best. Such managerial expectation does not preclude the possibility of managerial strategic behavior. If managers perceive the benefits to outweigh the costs, they behave strategically and even commit misconduct.

²⁶ For robustness checks, I use GAAP ETR and total book-tax difference as alternative measures of nonconforming tax avoidance.

²⁷ As discussed in Badertscher et al. (2019), the implicit assumption here is that firms of similar asset size pay similar amounts of income taxes, *ceteris paribus*.

the impact of nonconforming tax avoidance. Specifically, I estimate the following regression for each combination of industry (three-digit NAICS code) and fiscal year:

$$TAXESPAID_TO_ASSETS = \beta_0 + \beta_1 BTD + \beta_2 NEG + \beta_3 BTD \times NEG + \beta_4 NOL + \beta_5 \Delta NOL + \varepsilon.$$

BTD is the total book-tax difference; *NEG* an indicator equal to one if *BTD* is negative, and zero otherwise; *NOL* an indicator equal to one if net operating loss carryforwards is positive, and zero otherwise; ΔNOL the change in net operating loss carryforwards scaled by lagged total assets. The interaction between *BTD* and *NEG* allows for any potentially different effects of positive and negative total book-tax differences on cash taxes paid.²⁸ I control for *NOL* and ΔNOL because use of net operating loss carryforwards, which can reduce cash taxes paid, is irrelevant to conforming tax avoidance.

The residual from the regression above is the measure of conforming tax avoidance, denoted by *CONFORM_TAX*. By construction, a lower value of *CONFORM_TAX* indicates a higher level of conforming tax avoidance. Badertscher et al. (2019) validates this measure by performing simulation analyses and falsification tests. In addition, they provide support for the predictive validity of the measure by showing that FIFO-to-LIFO conversions lower the value of *CONFORM_TAX* and private firms, relative to propensity matched public firms, exhibit lower values of *CONFORM_TAX*.²⁹

To facilitate interpretation of results, I multiply this conforming tax avoidance measure by -1 so that a lower value indicates less conforming tax avoidance.

3.3 Empirical Model

To test my hypotheses, I follow Badertscher et al. (2019) and use seemingly unrelated regressions (SUR) to estimate the following two equations (hereafter, the baseline SUR model). Specifically, I estimate the system of the two equations and allow the error terms to have cross-

²⁸ Negative *BTD* may be indicative of factors unrelated to tax avoidance (e.g., changes in the valuation allowance).

²⁹ Private firms are more likely to engage in conforming tax avoidance than public firms because private firms are faced with fewer nontax costs (Cloyd et al., 1996).

equation correlation. In contrast, separate estimation of each individual equation using the ordinary least squares (OLS) assumes no correlation between the two respective error terms.³⁰

I cluster the standard errors by firm. All variables are measured for firm i , year t . The definition of each control variable is provided in the Appendix.

$$CASH_ETR = \beta_0 + \beta_1 DISTRACTION + \beta_2 INST_OWN + \beta_3 INST_OWN_HHI + \beta_4 ACQUISITION_D + \beta_5 EBIT + \beta_6 MGR_ABILITY + \beta_7 LOG_ASSETS + \beta_8 PPE + \varepsilon_1 \quad (1)$$

$$CONFORM_TAX = \gamma_0 + \gamma_1 DISTRACTION + \gamma_2 INST_OWN + \gamma_3 INST_OWN_HHI + \gamma_4 ACQUISITION_D + \gamma_5 EBIT + \gamma_6 MGR_ABILITY + \gamma_7 LOG_ASSETS + \gamma_8 INT_EXP + \varepsilon_2 \quad (2)$$

Following Kempf et al. (2017) and Liu et al. (2020), I control in both equations for institutional ownership structure, i.e., ownership (*INST_OWN*) and ownership concentration (*INST_OWN_HHI*). These controls isolate the effect of institutional shareholder distraction from the effect of institutional ownership structure. Prior studies show that higher institutional ownership leads to more nonconforming tax avoidance (Chen et al., 2019; Khan et al., 2017).

Following Badertscher et al. (2019), I control in both equations for acquisition activities (*ACQUISITION_D*), firm performance (*EBIT*), managerial ability (*MGR_ABILITY*), and firm size (*LOG_ASSETS*). Acquisition activities can influence corporate tax avoidance in various ways. For example, tax authorities provide tax credits and incentives for acquisitions. In addition, acquirers can avoid taxes by accelerating amortization of acquired assets and/or by exploiting net operating losses and/or other tax attributes of the target. Firm performance and size have been shown by prior studies to be correlated with tax avoidance (e.g., Manzon and Plesko, 2002; Rego, 2003). Managerial ability is positively associated with nonconforming tax avoidance (Koester, Shevlin, and Wangerin, 2017). This finding may imply that more able managers have fewer incentives to implement book-tax conforming strategies, leading to a lower level of conforming tax avoidance.

³⁰ I use OLS estimation separately for Equation (1) and (2) for a robustness check.

I also follow Badertscher et al. (2019) and include one unique control variable in each equation so that the SUR model is not reduced to equation-by-equation OLS.³¹ Specifically, I control for gross property, plant, and equipment (*PPE*) in Equation (1) and for interest expense (*INT_EXP*) in Equation (2). Capital intensive firms engage in more nonconforming tax avoidance because they are better able to exploit the differential treatments of depreciation for financial and tax reporting purposes (e.g., bonus depreciation as discussed in the Background Section). Interest expense creates a tax shield and is reflected in conforming tax avoidance.

The coefficients of interest are β_1 and γ_1 . If the estimated value of β_1 (γ_1) is significant, then H1a (H1b) is supported. Specifically, a positive and significant estimated value of β_1 (γ_1) is consistent with institutional shareholder distraction increasing nonconforming (conforming) tax avoidance while a negative and significant estimated value of β_1 (γ_1) is consistent with institutional shareholder distraction decreasing nonconforming (conforming) tax avoidance.

4. Sample and Data

I obtain accounting data from Compustat, stock return data from CRSP, and institutional holdings data from Thomson-Reuters Institutional (13f) Holdings database. These databases are combined to construct the measure of institutional shareholder distraction as in Kempf et al. (2017).³² Following Badertscher et al. (2019), I obtain managerial ability data from Peter Demerjian's updated 2018 dataset.³³ This measure of managerial ability is created and validated by Demerjian, Lev, and McVay (2012).

I exclude financial firms (SIC code 6000-6999) and utility firms (SIC code 4900-4999) and require requisite data to calculate all the variables in the baseline SUR model. Following prior literature, I require *CASH_ETR* to be in the range [0,1] and *TAXESPAID_TO_ASSETS* to

³¹ The SUR method is equivalent to equation-by-equation OLS when each equation has exactly the same set of regressors.

³² To ensure data precision, I directly use Kempf et al. (2017)'s distraction data covering the period 1980-2010, which is accessible via <https://sites.google.com/site/elikempf/research>.

³³ The managerial ability dataset is available at <https://peterdemerjian.weebly.com/managerialability.html>.

be nonnegative for the computation of *CONFORM_TAX*. Finally, I exclude firm-year observations experiencing any industry shock and remove firms headquartered outside U.S. following prior studies. Table 1 reports the sample formation.

The final sample consists of 5,907 firm-year observations, covering the period 1987-2010.³⁴ For the cross-sectional analyses and robustness checks, the sample size can be further reduced to varying extent due to differing additional data requirement. Specifically, I require BoardEx data for board independence, busyness, and size, and Compustat quarterly data for the annual earnings announcement date. The definitions of these variables are provided in the Appendix.

5. Empirical Results

5.1 Descriptive Statistics

Table 2 reports the descriptive statistics of the variables used in the main seemingly unrelated regressions. All continuous variables are winsorized at the 1st and 99th percentiles. The mean (median) value of the nonconforming tax avoidance measure (*CASH_ETR*) is -0.305 (-0.309), indicating a mean (median) cash effective tax rate of 30.5% (30.9%).³⁵ The values are comparable to those reported in Chen et al. (2010). The mean (median) value of the conforming tax avoidance measure (*CONFORM_TAX*) is -0.006 (-0.001), consistent with Badertscher et al. (2019). The mean (median) value of the institutional shareholder distraction measure (*DISTRACTION*) is 0.163 (0.158), which is in line with Kempf et al. (2017) and Liu et al. (2020).

For the control variables on institutional ownership structure, the descriptive statistics show that an average (a median) firm in the sample has an institutional ownership (*INST_OWN*)

³⁴ Requiring nonmissing data for the baseline SUR model results in substantial loss of observations. I obtain similar results when I maximize sample size by setting missing values to zero for Compustat accounting items in the baseline SUR model.

³⁵ Recall that *CASH_ETR* is multiplied by -1.

of 58.8% (59.7%) whose concentration (*INST_OWN_HHI*) is 0.072 (0.053), consistent with prior studies (e.g., Hartzell and Starks, 2003; Khan et al., 2017). The descriptive statistics of the other control variables are similar to those in Badertscher et al. (2019). Specifically, the mean (median) value of acquisition indicator (*ACQUISITION_D*) is 0.173 (0.000), firm performance (*EBIT*) 0.247 (0.191), managerial ability (*MGR_ABILITY*) 0.016 (-0.011),³⁶ firm size (*LOG_ASSETS*) 6.834 (6.720), gross property, plant, and equipment (*PPE*) 0.644 (0.590), and interest expense (*INT_EXP*) 0.019 (0.016).

5.2 Main Results

Table 3 presents the results of the seemingly unrelated regressions testing H1a and H1b. The first (last) two columns report the coefficient estimation for the regressions without (with) control variables. All regressions include industry and year fixed effects. Since the coefficient on *DISTRACTION* is statistically significant only when the dependent variable is *CONFORM_TAX* across the two sets of specifications, the results consistently show that nonconforming tax avoidance is unaffected by institutional shareholder distraction while conforming tax avoidance is decreasing in institutional shareholder distraction. These results provide support to H1b but not H1a.

The effect of institutional shareholder distraction on conforming tax avoidance is also economically significant. A one standard deviation increase in institutional shareholder distraction leads to a reduction of 27.77% ($= 0.049 \times 0.034 / 0.006$) in the conforming tax avoidance level.

For the control variables on institutional ownership structure, the results show that institutional ownership concentration promotes both nonconforming and conforming tax avoidance. This finding is consistent with Khan et al. (2017) and Chen et al. (2019), who show

³⁶ The values of *MGR_ABILITY* are different from those in Badertscher et al. (2019) because I use the updated version of managerial ability data available from <https://peterdemerjian.weebly.com/managerialability.html>.

that quasi-indexers influence management to increase nonconforming tax avoidance. Notably, the effects of institutional shareholder distraction and institutional ownership concentration on conforming tax avoidance are in the same order of magnitudes. For the other control variables, the coefficients have signs consistent with Badertscher et al. (2019).

5.3 Cross-sectional Analyses

Since I observe in the main analysis no effect of institutional shareholder distraction on nonconforming tax avoidance, I hereafter focus on the negative effect of institutional shareholder distraction on conforming tax avoidance. This negative effect is consistent with the effort aversion channel and the rent extraction via earnings management channel. The premise of these two channels is that reduced monitoring by institutional shareholder distraction exacerbates agency problems.

To corroborate this premise, I conduct cross-sectional analyses based on board monitoring. If institutional shareholder distraction intensifies agency problems, board monitoring is expected to alleviate the aggravated agency problems.

To further identify whether the effort aversion channel or the rent extraction via earnings management channel underlies the negative effect of institutional shareholder distraction on conforming tax avoidance, I undertake the cross-sectional analysis based on managerial ability.

For consistency with the main analysis, I continue to use the SUR model in all the cross-sectional analyses.

5.3.1 Board Monitoring

In this section, I examine whether the effect of institutional shareholder distraction depends on the strength of board monitoring. One key function of a board of directors is to oversee the management to minimize potential agency problem, and board monitoring is an

important governance mechanism through which managers can be disciplined. It is possible for board monitoring to at least partially substitute for the loosened monitoring by distracted institutional shareholders, thereby alleviating the effect of institutional shareholder distraction. I focus on the following board characteristics underlying the strength of board monitoring.³⁷

First, I test whether board independence can alleviate the negative effect of institutional shareholder distraction on conforming tax avoidance. Except the directorship, independent directors have no significant relationships with the firm, and are perceived to be objective when overseeing the management. Prior studies have documented that independent directors are effective monitors. For example, Weisbach (1988) finds that boards dominated by outside directors are more likely to fire CEOs for bad performance. Table 4 presents the results of this cross-sectional test. Column (2) shows that the coefficient on *DISTRACTION* is negative and significant while the coefficient on *DISTRACTION* $\times$ *BRD_IND* is positive and significant. This result provides support that the negative effect of institutional shareholder distraction on conforming tax avoidance is alleviated by board independence. Specifically, this negative effect is 74.16% ($= 0.066/0.089$) lower in magnitude for firms with high board independence compared to firms with low board independence.

Next, I test whether board busyness amplifies the negative effect of institutional shareholder distraction on conforming tax avoidance. Busy boards are related to weaker corporate governance (e.g., Fich and Shivdasani, 2006). Table 5 reports the results of the cross-sectional test. The board busyness measure, *BRD_BUSYNESS*, is mean-centered (i.e., the mean is subtracted from the original value so that it has a mean of 0) to facilitate interpretation of the results as the variable does not have a value of zero in the sample. Column (2) shows that the coefficient on *DISTRACTION* is negative, albeit insignificant, while the coefficient on

³⁷ In light of Liu et al. (2020)'s finding that institutional shareholder distraction weakens board governance, I measure board monitoring contemporaneously with institutional shareholder distraction to incorporate the latter's detrimental effect on board governance.

$DISTRACTION \times BRD_BUSYNESS$ is negative and significant, implying that the negative effect of institutional shareholder distraction on conforming tax avoidance is magnified by board busyness. Specifically, for an average firm, one additional directorship to the board translates to a 123% ($= 0.029/0.013$) increase in the magnitude of this negative effect.

Last, I test whether board size attenuates the negative effect of institutional shareholder distraction on conforming tax avoidance. Larger boards have more directors to cover committee assignments, resulting in fewer assignments per director (Fich and Shivdasani, 2006; Monks, 2002). The reduced workload per director enables directors to provide greater monitoring capacity. Further, the monitoring role *per se* is distributed to more observers. These arguments suggest that larger boards have stronger monitoring.³⁸ Consistent with this notion, Dalton, Daily, Johnson, and Ellstrand (1999) and Anderson, Mansi, and Reeb (2004) find that board size improves firm performance and lowers cost of debt, respectively. Table 6 reports the results of the cross-sectional test. The board size measure, BRD_SIZE , is mean-centered (i.e., the mean is subtracted from the original value so that it has a mean of 0) to facilitate interpretation of the results as the variable does not have a value of zero in the sample. Column (2) shows that the coefficient on $DISTRACTION$ is negative and significant while the coefficient on $DISTRACTION \times BRD_SIZE$ is positive and significant. This suggests that the negative effect of institutional shareholder distraction on conforming tax avoidance is alleviated by board size. Specifically, one standard deviation increase in BRD_SIZE leads to a reduction of 35.14% ($= 0.055 \times 0.377 / 0.059$) in the magnitude of this negative effect.³⁹

While the cross-sectional tests based on board independence and size report a negative main effect of institutional shareholder distraction on nonconforming tax avoidance, the one based on board busyness shows no main effect, as does the main analysis.

³⁸ Some scholars view large board size as detrimental to the advising role of directors due to costs of coordination and communication (Jensen, 1993; Lipton and Lorsch, 1992; Yermack, 1996). In my research setting, board monitoring is the relevant role of directors.

³⁹ The standard deviation of BRD_SIZE is 0.377.

Collectively, I show that the negative effect of institutional shareholder distraction on conforming tax avoidance is alleviated by board monitoring. These results lend support to the premise that institutional shareholder distraction exacerbates agency problems due to reduced shareholder monitoring.

5.3.2 Managerial Ability

Since the results obtained so far are consistent with both the effort aversion channel and the rent extraction via earnings management channel, neither channel can be identified or ruled out. To pinpoint the channel, I test whether managerial ability attenuates or magnifies the negative effect of institutional shareholder distraction on conforming tax avoidance. I argue that the effort aversion (rent extraction via earnings management) channel can be identified if managerial ability mitigates (amplifies) this negative effect.

First, if the negative effect of institutional shareholder distraction on conforming tax avoidance is driven by managerial effort aversion, managerial ability should mitigate this negative effect. This is because managerial ability, by compensating for effort reduction, should offset the reduction in conforming tax avoidance brought about by managerial effort reduction. Second, if the negative effect of institutional shareholder distraction on conforming tax avoidance is driven by the rent extraction via earnings management channel, managerial ability should amplify this negative effect. This is because high-ability managers, relative to low-ability managers, are more able and ready to extract rents, which is consistent with Malmendier and Tate (2009)'s evidence that award-winning CEOs, as high-ability managers, extract more rents. Therefore, high-ability managers should reduce more conforming tax avoidance as they extract more rents via earnings management when institutional shareholders are distracted.

Table 7 presents the results of this cross-sectional test. Column (2) shows that the coefficient on *DISTRACTION* is negative and significant while the coefficient on

DISTRACTION $\times$ *HIGH_MGR_ABILITY* is positive and significant. This shows that managerial ability attenuates the negative effect of institutional shareholder distraction on conforming tax avoidance. Specifically, this negative effect is 56.34% ($= 0.040/0.071$) lower in magnitude for firms with high managerial ability than for firms with low managerial ability. Consistent with no main effect of institutional shareholder distraction on nonconforming tax avoidance as documented by the main analysis, Column (1) shows that the coefficient on *DISTRACTION* is insignificant, where the dependent variable is the nonconforming tax avoidance measure, *CASH_ETR*.

The results of this cross-sectional test shed light upon the effort aversion channel as the mechanism through which institutional shareholder distraction decreases conforming tax avoidance.

6. Robustness Checks

6.1 Ordinary Least Squares Estimation

In my research setting, I use seemingly unrelated regressions to simultaneously estimate the effect of institutional shareholder distraction on nonconforming and conforming tax avoidance. In this section, I test whether the SUR results are robust to the canonical estimation approach, i.e., the ordinary least squares. Instead of estimating the baseline SUR model, I estimate Equation (1) & (2) separately without assuming any correlation between error terms across the equations.

Table 8 reports the OLS results. The coefficient on *DISTRACTION* is -0.049 and significant at the 5% level in Column (2), where the dependent variable is the conforming tax avoidance measure, *CONFORM_TAX*. In contrast, the coefficient on *DISTRACTION* is insignificant in Column (1), where the dependent variable is the nonconforming tax avoidance measure, *CASH_ETR*. Together, the OLS results show a negative (null) effect of institutional

shareholder distraction on conforming (nonconforming) tax avoidance, consistent with the SUR results.

6.2 Alternative Fixed Effects

I follow prior literature on the cross-sectional determinants of corporate tax avoidance and control for industry and year fixed effects in the previous analyses. In this section, I test whether my results are robust to alternative fixed effects. Specifically, I first replace industry fixed effects with firm fixed effects to test whether time-invariant firm-specific omitted variables are driving my results. Then I follow prior studies on institutional shareholder distraction and control for industry $\times$ year fixed effects to test whether industry-year specific omitted variables are driving my results.

Table 9 presents the results. The first (last) two columns report the results when firm and year (industry $\times$ year) fixed effects are controlled for. Across these two alternative specifications, the coefficient on *DISTRACTION* is negative and significant at the 1% level in Column (2) & (4), where the dependent variable is the conforming tax avoidance measure, *CONFORM_TAX*. These results are statistically stronger than the corresponding result of the main analysis. Notably, the coefficient on *DISTRACTION* remains insignificant in Column (1) & (3), where the dependent variable is the nonconforming tax avoidance measure, *CASH_ETR*.

Collectively, my results are not driven by time-invariant unobserved firm-specific characteristics or industry-year specific omitted variables.

6.3 Alternative Measure of Institutional Shareholder Distraction

I follow prior literature and use the annual measure of institutional shareholder distraction calculated as the average of Kempf et al. (2017)'s quarterly measure over the four quarters immediately prior to the fiscal year end. Alternatively, I can calculate the annual measure by taking the average of the quarterly measure over the four quarters immediately

prior to the annual earnings announcement date, i.e., the reporting date for the fourth fiscal quarter as in the Compustat quarterly database. This alternative measure is denoted by *DISTRACTION_EA*.

Table 10 presents the results. The coefficient on *DISTRACTION* is negative and significant in Column (2) while the coefficient on *DISTRACTION* is insignificant in Column (1). The results show a negative (null) effect of institutional shareholder distraction on conforming (nonconforming) tax avoidance, indicating that my results are robust to this alternative measure of institutional shareholder distraction.

6.4 Alternative Measures of Nonconforming Tax Avoidance

In this section, I test whether my results are robust to alternative measures of nonconforming tax avoidance, i.e., GAAP ETR (*GAAP_ETR*) and total book-tax difference (*BTD*). Specifically, I reestimate the baseline SUR model with *CASH_ETR* replaced by *GAAP_ETR* and *BTD*, respectively.

The first (last) two columns of Table 11 report the results of the SUR model in which nonconforming tax avoidance is measured by *GAAP_ETR* (*BTD*). For both models, the coefficient on *DISTRACTION* is significant and negative (insignificant) when the dependent variable is *CONFORM_TAX* (*GAAP_ETR* or *BTD*). The results show that institutional shareholder distraction decreases conforming tax avoidance without affecting nonconforming tax avoidance.

6.5 Alternative Measure of Conforming Tax Avoidance

In the baseline SUR model, I control for firm performance proxied by *EBIT*. In this section, I follow an alternative approach to controlling for firm performance as in Badertscher et al. (2019). Specifically, I include the natural logarithm of pretax income as a control for firm performance in the estimation of *CONFORM_TAX*. I label as *CONFORM_TAX_PI* the

alternative measure of conforming tax avoidance obtained in this way, which is by construction orthogonal to any impact of firm performance. I reestimate the baseline SUR model replacing *CONFORM_TAX* by *CONFORM_TAX_PI*.

Table 12 presents the results. The coefficient on *DISTRACTION* is significant and negative (insignificant) when the conforming (nonconforming) tax avoidance measure is the dependent variable. Therefore, my results are robust to this alternative measure of conforming tax avoidance.

6.6 Alternative Measure of Managerial Ability

In this section, I test whether my results are robust to an alternative measure of managerial ability, i.e., the *General Ability Index* (*MGR_GAI*) developed by Custódio, Ferreira, and Matos (2013).

The *General Ability Index* measures general managerial skills that are not firm-specific but transferrable across firms or industries. This measure is based on the following five dimensions of a CEO's professional career: (1) number of positions that the CEO performed; (2) number of firms in which the CEO worked; (3) number of industries in which the CEO worked; (4) whether the CEO held a CEO position of a different firm; and (5) whether the CEO worked for a conglomerate.

I reestimate the baseline SUR model with *MGR_ABILITY* replaced by *MGR_GAI*. I directly use the *General Ability Index* data covering the period 1993-2012 provided on Cláudia Custódio's website.⁴⁰

Table 13 presents the results. The coefficient on *DISTRACTION* is significant and negative (insignificant) when the dependent variable is the conforming (nonconforming) tax

⁴⁰ The dataset is available at <https://sites.google.com/site/claudiapcustodio/research>.

avoidance measure, indicating that my results are robust to this alternative measure of managerial ability.

6.7 Controlling for Earnings Management

Liu et al. (2020) and Garel, Martin-Flores, Petit-Romec, and Scott (2021) show that managers engage in more earnings management when institutional shareholders are distracted. To test if my results continue to hold when earnings management is held constant, I augment the baseline SUR model by including earnings management as an additional control. To measure earnings management, I use the performance-matched discretionary accruals (*PMDA*) by Kothari, Leone, and Wasley (2005).

Table 14 reports the results. The coefficient on *DISTRACTION* is significant only for *CONFORM_TAX* and is negative, showing that the negative (null) effect of institutional shareholder distraction on conforming (nonconforming) tax avoidance is robust to controlling for earnings management.

Although the above test shows that earnings management cannot fully explain my results, to what extent earnings management can/cannot explain my results remains to be answered. To have the answer, I compare the estimated coefficients on *DISTRACTION* before and after adding *PMDA* to the baseline SUR model to test how much of the institutional shareholder distraction effect is mitigated by controlling for earnings management.

This approach is essentially a path analysis that examines the mediating role of earnings management (e.g., Baron and Kenny, 1986; Hicks and Tingley, 2011; MacKinnon, Fairchild, and Fritz, 2007), thus allowing me to directly test the rent extraction via earnings management channel. In a formal path analysis, the following three equations are estimated: (1) $Y = \alpha_1 + \beta_1 X + \varepsilon_1$; (2) $Y = \alpha_2 + \beta_2 X + \beta_3 M + \varepsilon_2$; and (3) $M = \alpha_3 + \beta_4 X + \varepsilon_3$. For M to mediate the effect of X on Y , one necessary condition is that $\widehat{\beta}_1 - \widehat{\beta}_2$ or equivalently $\widehat{\beta}_3 \times \widehat{\beta}_4$ is statistically significant (MacKinnon and Dwyer, 1993; MacKinnon, Warsi, and Dwyer, 1995). In my case,

testing the statistical significance of $\widehat{\beta}_1 - \widehat{\beta}_2$ is comparing the estimated coefficients on *DISTRACTION* before and after adding *PMDA* to the baseline SUR model.

Table 15 presents the results. The first (last) two columns report the results for the seemingly unrelated regressions of the tax avoidance measures on the institutional shareholder distraction measure before (after) adding *PMDA* as a control variable. I compare the Column (2) & (4) coefficients on *DISTRACTION* and find that the coefficient difference is insignificant (p -value = 0.3002). This provides direct evidence that earnings management does not mediate the negative effect of institutional shareholder distraction on conforming tax avoidance. Moreover, I compare the Column (1) & (3) coefficients on *DISTRACTION* and find no significant coefficient difference (p -value = 0.3628). Therefore, earnings management plays no mediating role and does not explain any of my results.

This analysis, in combination of the cross-sectional test based on managerial ability, suggests no evidence of rent extraction via earnings management channel.

7. Conclusion

I simultaneously examine the effect of institutional shareholder distraction on nonconforming and conforming tax avoidance. Using exogenous shocks to unrelated parts of institutional shareholders' portfolios, I find that institutional shareholder distraction decreases conforming tax avoidance but does not affect nonconforming tax avoidance. I further find that the negative effect of institutional shareholder distraction on conforming tax avoidance is mitigated by board monitoring. This cross-sectional result provides support that institutional shareholder distraction intensifies agency problems. Consistent (inconsistent) with the effort aversion (rent extraction via earnings management) channel, I find that managerial ability attenuates the negative effect of institutional shareholder distraction on conforming tax avoidance. Moreover, I show that earnings management plays no mediating role. Collectively,

my findings suggest that managers conduct less conforming tax avoidance due to effort aversion exacerbated by institutional shareholder distraction.

My study contributes to the literature on corporate tax avoidance by concurrently examining nonconforming and conforming tax avoidance. I identify one corporate tax avoidance determinant that only affects the often-overlooked conforming tax avoidance, thus underscoring the importance of simultaneous examination of nonconforming and conforming tax avoidance. My results also extend the growing literature on institutional investor distraction by providing evidence of managerial effort aversion.

My study is not without limitations that point to future work. First, I do not disaggregate institutional shareholders based on their horizons when measuring institutional shareholder distraction. Long-term institutional shareholders are more likely to monitor as they focus on firm performance in the long run. In contrast, short-term institutional shareholders simply prefer firms to have higher earnings and stock prices. I will refine the existing distraction measure by decomposing it into the distraction of long-term institutional shareholders and the distraction of transient institutional shareholders. Second, I solely rely on industry extreme returns to identify exogenous shocks to institutional shareholder distraction. To further corroborate my findings and inferences, I will use investment bank mergers & acquisitions as alternative exogenous shocks to institutional shareholder distraction for future analyses.

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APPENDIX Variable Definitions

<i>ACQUISITION_D</i>	An indicator equal to 1 if the total amount of acquisitions (AQC) exceeds 5 percent of total assets (AT), and 0 otherwise.
<i>BRD_BUSYNESS</i>	Board busyness: the number of directorships per director for the board. This is then mean-centered (i.e., the mean is subtracted from the original value so that it has a mean of 0).
<i>BRD_IND</i>	An indicator equal to 1 if the board independence is above the sample median, and 0 otherwise, where the board independence is defined as the fraction of board members who are independent directors as indicated by BoardEx.
<i>BRD_SIZE</i>	Board size: the natural logarithm of the number of directors on the board. This is then mean-centered (i.e., the mean is subtracted from the original value so that it has a mean of 0).
<i>BTD</i>	Total book-tax differences: book income less estimated taxable income scaled by lagged assets. Book income is pretax income (PI). Estimated taxable income is calculated by summing current federal tax expense (TXFED) and current foreign tax expense (TXFO) and dividing by the statutory tax rate (STR) and then subtracting change in net operating loss carryforwards (TLCF). If current federal tax expense is missing, total current tax expense is calculated by subtracting deferred taxes (TXDI), state income taxes (TXS), and other income taxes (TXO) from total income taxes (TXT). This difference is scaled by lagged assets.
<i>CASH_ETR</i>	Cash effective tax rate: cash taxes paid (TXPD) divided by pretax income (PI). It is truncated to the range [0,1]. This is then multiplied by -1.
<i>CONFORM_TAX</i>	Conforming tax avoidance: the residual from the following regression, which is estimated by 3-digit NAICS and fiscal year combinations: $TAXESPAID_TO_ASSETS_{it} = \beta_0 + \beta_1 BTD_{it} + \beta_2 NEG_{it} + \beta_3 BTD_{it} \times NEG_{it} + \beta_4 NOL_{it} + \beta_5 \Delta NOL_{it} + \varepsilon_{i,t}$. A minimum of 10 observations are required to be available for each industry-year combination. <i>TAXESPAID_TO_ASSETS</i> is the ratio of cash taxes paid (TXPD) to lagged assets; <i>BTD</i> is total book-tax difference; <i>NEG</i> is an indicator equal to 1 if <i>BTD</i> is negative, and 0 otherwise; <i>BTD</i> $\times$ <i>NEG</i> is the interaction between <i>BTD</i> and <i>NEG</i> ; <i>NOL</i> is an indicator equal to 1 if net operating loss carryforwards (TLCF) is positive, and 0 otherwise; ΔNOL is the change in net operating loss carryforwards (TLCF) scaled by lagged assets. The residual is then multiplied by -1.
<i>DISTRACTION</i>	Institutional shareholder distraction: the average of Kempf et al. (2017)'s distraction measure over the four quarters immediately prior to the fiscal year end.
<i>DISTRACTION_EA</i>	An alternative measure of institutional shareholder distraction: the average of Kempf et al. (2017)'s distraction measure over the four quarters immediately prior to the annual earnings announcement date.
<i>EBIT</i>	Earnings before interest and taxes (EBIT) scaled by net operating assets, where net operating assets equals stockholders' equity (SEQ) minus cash and short-term investments (CHE) plus interest

	(XINT) plus debt in current liabilities (DLC) plus long-term debt (DLTT).
<i>GAAP_ETR</i>	Effective tax rate: total tax expense (TXT) divided by pre-tax income (PI). It is truncated to the range [0,1]. This is then multiplied by -1.
<i>HIGH_MGR_ABILITY</i>	An indicator equal to 1 if the managerial ability measure, <i>MGR_ABILITY</i> , is above the sample median, and 0 otherwise.
<i>INST_OWN</i>	Institutional ownership: the fraction of the firm's common shares outstanding owned by institutional investors as reported in the Thomson Reuters 13f database.
<i>INST_OWN_HHI</i>	Institutional ownership concentration: the Herfindahl-Hirschman index (HHI) of institutional ownership.
<i>INT_EXP</i>	Interest expense (XINT) scaled by lagged assets.
<i>LOG_ASSETS</i>	The natural logarithm of total assets (AT).
<i>MGR_ABILITY</i>	Managerial ability score (MA_SCORE_2018). I use the updated 2018 dataset available on Peter Demerjian's website at https://peterdemerjian.weebly.com/managerialability.html .
<i>MGR_GAI</i>	The <i>General Ability Index</i> . I use the dataset covering the period 1993-2012 available on Cláudia Custódio's website at https://sites.google.com/site/claudiapcustodio/research
<i>PPE</i>	Gross property, plant, and equipment (PPEGT) scaled by lagged assets.

Table 1 Sample Formation

This table reports the sample formation. The final sample consists of 5,907 firm-year observations covering the period 1987-2010.

	Observations
Initial firm-quarter sample with distraction data (1980 Q1-2010 Q4)	301,415
Initial firm-year sample with distraction data (1980-2010)	75,354 (expected)
After merging with Compustat (Financial & Utility Firms Excluded)	51,507
After merging with Thomson Reuters Institutional (13f) Holdings	35,278
After merging with managerial ability data	34,460
After requiring data to calculate all the variables in the baseline SUR model	9,850
After excluding firm-year observations experiencing industry shocks	6,019
After excluding firms headquartered outside U.S.	5,907
Final sample	5,907

Table 2 Descriptive Statistics

This table reports the summary statistics of the final sample consisting of 5,907 firm-year observations covering the period 1987-2010. See the Appendix for variable definitions.

	n	Mean	Std. Dev.	25th Percentile	50th Percentile	75th Percentile
Tax variables						
<i>CASH_ETR</i>	5,907	-0.305	0.156	-0.387	-0.309	-0.209
<i>CONFORM_TAX</i>	5,907	-0.006	0.029	-0.020	-0.001	0.013
Distraction variable						
<i>DISTRACTION</i>	5,907	0.163	0.034	0.140	0.158	0.180
Control variables						
<i>INST_OWN</i>	5,907	0.588	0.234	0.424	0.597	0.756
<i>INST_OWN_HHI</i>	5,907	0.072	0.067	0.037	0.053	0.080
<i>ACQUISITION_D</i>	5,907	0.173	0.379	0.000	0.000	0.000
<i>EBIT</i>	5,907	0.247	0.216	0.131	0.191	0.288
<i>MGR_ABILITY</i>	5,907	0.016	0.127	-0.064	-0.011	0.060
<i>LOG_ASSETS</i>	5,907	6.834	1.404	5.799	6.720	7.705
<i>PPE</i>	5,907	0.644	0.398	0.330	0.590	0.898
<i>INT_EXP</i>	5,907	0.019	0.017	0.006	0.016	0.026

Table 3 Main Results: Seemingly Unrelated Regressions

This table reports the results for the seemingly unrelated regressions of the tax avoidance measures on the institutional shareholder distraction measure. The first (last) two columns report the results for the seemingly unrelated regressions that exclude (include) the control variables. All the continuous variables are winsorized at the 1st and 99th percentiles. See the Appendix for variable definitions. z-statistics based on robust standard errors clustered by firms are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1) <i>CASH ETR</i>	(2) <i>CONFORM TAX</i>	(3) <i>CASH ETR</i>	(4) <i>CONFORM TAX</i>
<i>DISTRACTION</i>	-0.002 (-0.014)	-0.052** (-2.202)	0.032 (0.297)	-0.049** (-2.519)
<i>INST_OWN</i>			0.001 (0.076)	0.003 (1.053)
<i>INST_OWN_HHI</i>			0.122*** (2.928)	0.031*** (4.205)
<i>ACQUISITION_D</i>			-0.006 (-1.218)	-0.005*** (-5.528)
<i>EBIT</i>			-0.013 (-1.158)	-0.062*** (-15.315)
<i>MGR_ABILITY</i>			0.015 (0.648)	-0.018*** (-4.383)
<i>LOG_ASSETS</i>			0.001 (0.230)	0.004*** (8.076)
<i>PPE</i>			0.044*** (5.328)	
<i>INT_EXP</i>				0.165*** (5.710)
Intercept	-0.305*** (-16.405)	0.002 (0.630)	-0.537*** (-4.394)	-0.029*** (-3.133)
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Adjusted R^2	0.107	0.017	0.113	0.318
N	5,907	5,907	5,907	5,907

Table 4 Cross-sectional Analysis: Board Independence

This table reports the results of the cross-sectional analysis based on board independence. Seemingly unrelated regressions are used for the analysis. All the continuous variables are winsorized at the 1st and 99th percentiles. See the Appendix for variable definitions. z-statistics based on robust standard errors clustered by firms are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1) <i>CASH ETR</i>	(2) <i>CONFORM TAX</i>
<i>DISTRACTION</i>	-0.719*** (-3.291)	-0.089*** (-2.779)
<i>DISTRACTION</i> × <i>BRD_IND</i>	0.520** (2.362)	0.066** (2.036)
<i>BRD_IND</i>	-0.083** (-2.304)	-0.010** (-2.008)
<i>INST_OWN</i>	-0.019 (-0.723)	0.005 (1.015)
<i>INST_OWN_HHI</i>	0.042 (0.426)	0.031*** (2.668)
<i>ACQUISITION_D</i>	-0.024** (-2.479)	-0.005*** (-3.125)
<i>EBIT</i>	-0.007 (-0.348)	-0.036*** (-7.256)
<i>MGR_ABILITY</i>	0.057* (1.748)	-0.010 (-1.608)
<i>LOG_ASSETS</i>	-0.003 (-0.900)	0.001* (1.826)
<i>PPE</i>	0.044*** (3.315)	
<i>INT_EXP</i>		0.105* (1.794)
Intercept	-0.088 (-1.400)	-0.006 (-0.685)
Industry FE	Yes	Yes
Year FE	Yes	Yes
Adjusted R ²	0.109	0.169
N	1,518	1,518

Table 5 Cross-sectional Analysis: Board Busyness

This table reports the results of the cross-sectional analysis based on board busyness mean-centered (i.e., the mean is subtracted from the original value so that it has a mean of 0). Seemingly unrelated regressions are used for the analysis. All the continuous variables are winsorized at the 1st and 99th percentiles. See the Appendix for variable definitions. z-statistics based on robust standard errors clustered by firms are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1) <i>CASH ETR</i>	(2) <i>CONFORM TAX</i>
<i>DISTRACTION</i>	-0.201 (-0.692)	-0.013 (-0.324)
<i>DISTRACTION</i> × <i>BRD_BUSYNESS</i>	-0.166** (-1.969)	-0.029** (-2.186)
<i>BRD_BUSYNESS</i>	0.036** (2.464)	0.006** (2.250)
<i>INST_OWN</i>	-0.017 (-0.429)	-0.004 (-0.639)
<i>INST_OWN_HHI</i>	-0.112 (-0.963)	0.003 (0.265)
<i>ACQUISITION_D</i>	-0.006 (-0.422)	-0.003 (-1.190)
<i>EBIT</i>	-0.016 (-0.566)	-0.037*** (-4.280)
<i>MGR_ABILITY</i>	0.076* (1.673)	-0.015 (-1.430)
<i>LOG_ASSETS</i>	-0.020*** (-3.450)	-0.000 (-0.020)
<i>PPE</i>	0.049*** (2.698)	
<i>INT_EXP</i>		0.004 (0.047)
Intercept	0.029 (0.259)	-0.001 (-0.065)
Industry FE	Yes	Yes
Year FE	Yes	Yes
Adjusted R ²	0.144	0.142
N	680	680

Table 6 Cross-sectional Analysis: Board Size

This table reports the results of the cross-sectional analysis based on board size mean-centered (i.e., the mean is subtracted from the original value so that it has a mean of 0). Seemingly unrelated regressions are used for the analysis. All the continuous variables are winsorized at the 1st and 99th percentiles. See the Appendix for variable definitions. z-statistics based on robust standard errors clustered by firms are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1) <i>CASH ETR</i>	(2) <i>CONFORM TAX</i>
<i>DISTRACTION</i>	-0.284* (-1.798)	-0.059** (-2.321)
<i>DISTRACTION</i> × <i>BRD_SIZE</i>	-0.172 (-0.778)	0.055* (1.718)
<i>BRD_SIZE</i>	0.023 (0.561)	-0.011* (-1.783)
<i>INST_OWN</i>	-0.009 (-0.359)	0.003 (0.851)
<i>INST_OWN_HHI</i>	0.084 (0.996)	0.029** (2.562)
<i>ACQUISITION_D</i>	-0.012 (-1.502)	-0.005*** (-3.542)
<i>EBIT</i>	-0.017 (-0.928)	-0.042*** (-8.167)
<i>MGR_ABILITY</i>	0.070** (2.363)	-0.010* (-1.815)
<i>LOG_ASSETS</i>	-0.003 (-0.711)	0.003*** (3.148)
<i>PPE</i>	0.045*** (3.750)	
<i>INT_EXP</i>		0.132*** (2.593)
Intercept	-0.227*** (-2.859)	-0.017* (-1.650)
Industry FE	Yes	Yes
Year FE	Yes	Yes
Adjusted R ²	0.104	0.207
N	1,998	1,998

Table 7 Cross-sectional Analysis: Managerial Ability

This table reports the results of the cross-sectional analysis based on managerial ability. Seemingly unrelated regressions are used for the analysis. All the continuous variables are winsorized at the 1st and 99th percentiles. See the Appendix for variable definitions. z-statistics based on robust standard errors clustered by firms are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1) <i>CASH ETR</i>	(2) <i>CONFORM TAX</i>
<i>DISTRACTION</i>	-0.078 (-0.655)	-0.071*** (-3.588)
<i>DISTRACTION</i> × <i>HIGH_MGR_ABILITY</i>	0.218* (1.929)	0.040** (2.149)
<i>HIGH_MGR_ABILITY</i>	-0.041** (-2.175)	-0.013*** (-4.109)
<i>INST_OWN</i>	0.002 (0.097)	0.003 (1.088)
<i>INST_OWN_HHI</i>	0.121*** (2.928)	0.030*** (4.272)
<i>ACQUISITION_D</i>	-0.007 (-1.271)	-0.005*** (-5.639)
<i>EBIT</i>	-0.008 (-0.676)	-0.063*** (-15.892)
<i>LOG_ASSETS</i>	0.001 (0.447)	0.004*** (7.918)
<i>PPE</i>	0.043*** (5.195)	
<i>INT_EXP</i>		0.162*** (5.660)
Intercept	-0.517*** (-4.216)	-0.021** (-2.389)
Industry FE	Yes	Yes
Year FE	Yes	Yes
Adjusted R ²	0.114	0.323
N	5,907	5,907

Table 8 Robustness Check: Ordinary Least Squares Regressions

This table reports the results for the ordinary least squares regressions of the tax avoidance measures on the institutional shareholder distraction measure. All the continuous variables are winsorized at the 1st and 99th percentiles. See the Appendix for variable definitions. z-statistics based on robust standard errors clustered by firms are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1) <i>CASH ETR</i>	(2) <i>CONFORM TAX</i>
<i>DISTRACTION</i>	0.030 (0.276)	-0.049** (-2.498)
<i>INST_OWN</i>	0.001 (0.051)	0.003 (1.070)
<i>INST_OWN_HHI</i>	0.120*** (2.826)	0.030*** (4.159)
<i>ACQUISITION_D</i>	-0.007 (-1.218)	-0.005*** (-5.655)
<i>EBIT</i>	-0.014 (-1.174)	-0.062*** (-15.072)
<i>MGR_ABILITY</i>	0.013 (0.551)	-0.018*** (-4.269)
<i>LOG_ASSETS</i>	0.001 (0.252)	0.004*** (7.727)
<i>PPE</i>	0.038*** (4.206)	
<i>INT_EXP</i>		0.213*** (6.307)
Intercept	-0.343*** (-12.460)	-0.014*** (-2.671)
Industry FE	Yes	Yes
Year FE	Yes	Yes
Adjusted R^2	0.113	0.318
N	5,907	5,907

Table 9 Robustness Check: Alternative Fixed Effects

This table reports the results for the seemingly unrelated regressions controlling for alternative fixed effects. Specifically, the first (last) two columns report the results when firm and year (industry $\times$ year) fixed effects are included. All the continuous variables are winsorized at the 1st and 99th percentiles. See the Appendix for variable definitions. z-statistics based on robust standard errors clustered by firms are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1) <i>CASH ETR</i>	(2) <i>CONFORM TAX</i>	(3) <i>CASH ETR</i>	(4) <i>CONFORM TAX</i>
<i>DISTRACTION</i>	0.030 (0.302)	-0.053*** (-3.130)	0.006 (0.051)	-0.063*** (-3.116)
<i>INST_OWN</i>	0.024 (0.892)	0.006 (1.369)	-0.005 (-0.350)	0.002 (0.613)
<i>INST_OWN_HHI</i>	0.038 (0.707)	0.024** (1.974)	0.110*** (2.721)	0.031*** (4.101)
<i>ACQUISITION_D</i>	-0.002 (-0.293)	-0.004*** (-4.858)	-0.006 (-1.031)	-0.006*** (-5.495)
<i>EBIT</i>	0.036* (1.756)	-0.056*** (-8.143)	-0.016 (-1.340)	-0.066*** (-16.975)
<i>MGR_ABILITY</i>	-0.063** (-2.122)	-0.010* (-1.795)	0.006 (0.257)	-0.020*** (-4.650)
<i>LOG_ASSETS</i>	-0.022*** (-2.993)	0.004** (2.000)	0.002 (0.741)	0.004*** (8.102)
<i>PPE</i>	0.051*** (3.130)		0.042*** (5.152)	
<i>INT_EXP</i>		0.098* (1.689)		0.197*** (7.089)
Intercept	-0.134*** (-2.618)	0.004 (0.324)	-0.353*** (-5.785)	-0.017*** (-2.875)
Firm FE	Yes	Yes	No	No
Year FE	Yes	Yes	No	No
Industry $\times$ Year FE	No	No	Yes	Yes
Adjusted R^2	0.334	0.559	0.112	0.310
N	5,907	5,907	5,907	5,907

Table 10 Robustness Check: Alternative Measure of Institutional Shareholder**Distraction**

This table reports the results for the seemingly unrelated regressions of the tax avoidance measures on an alternative measure of institutional shareholder distraction (*DISTRACTION_EA*). All the continuous variables are winsorized at the 1st and 99th percentiles. See the Appendix for variable definitions. z-statistics based on robust standard errors clustered by firms are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1) <i>CASH ETR</i>	(2) <i>CONFORM TAX</i>
<i>DISTRACTION_EA</i>	0.040 (0.370)	-0.053*** (-2.800)
<i>INST_OWN</i>	0.000 (0.011)	0.003 (1.149)
<i>INST_OWN_HHI</i>	0.114*** (2.821)	0.032*** (4.204)
<i>ACQUISITION_D</i>	-0.008 (-1.528)	-0.005*** (-5.502)
<i>EBIT</i>	-0.012 (-1.016)	-0.063*** (-15.750)
<i>MGR_ABILITY</i>	0.017 (0.732)	-0.018*** (-4.307)
<i>LOG_ASSETS</i>	0.001 (0.389)	0.004*** (8.087)
<i>PPE</i>	0.043*** (5.217)	
<i>INT_EXP</i>		0.167*** (5.683)
Intercept	-0.543*** (-4.048)	-0.025*** (-3.205)
Industry FE	Yes	Yes
Year FE	Yes	Yes
Adjusted R^2	0.112	0.322
N	5,861	5,861

Table 11 Robustness Check: Alternative Measures of Nonconforming Tax Avoidance

This table reports the results for the seemingly unrelated regressions of the alternative tax avoidance measures on the institutional shareholder distraction measure. Specifically, the first (last) two columns report the results when the nonconforming tax avoidance measure, *CASH_ETR*, is replaced by *GAAP_ETR* (*BTD*). All the continuous variables are winsorized at the 1st and 99th percentiles. See the Appendix for variable definitions. z-statistics based on robust standard errors clustered by firms are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1) <i>GAAP_ETR</i>	(2) <i>CONFORM TAX</i>	(3) <i>BTD</i>	(4) <i>CONFORM TAX</i>
<i>DISTRACTION</i>	-0.007 (-0.115)	-0.045** (-2.327)	0.036 (0.917)	-0.039** (-2.018)
<i>INST_OWN</i>	-0.041*** (-3.279)	0.003 (0.922)	-0.014*** (-2.871)	0.001 (0.416)
<i>INST_OWN_HHI</i>	0.129*** (3.616)	0.030*** (4.158)	0.018 (1.580)	0.029*** (3.945)
<i>ACQUISITION_D</i>	-0.009** (-2.535)	-0.005*** (-5.591)	0.007*** (4.013)	-0.005*** (-4.629)
<i>EBIT</i>	-0.006 (-0.745)	-0.062*** (-15.000)	0.010* (1.916)	-0.064*** (-13.869)
<i>MGR_ABILITY</i>	0.029 (1.466)	-0.018*** (-4.297)	0.014* (1.717)	-0.017*** (-3.840)
<i>LOG_ASSETS</i>	0.004** (2.312)	0.004*** (7.807)	-0.000 (-0.615)	0.004*** (7.134)
<i>PPE</i>	0.027*** (3.981)		0.021*** (7.119)	
<i>INT_EXP</i>		0.214*** (6.500)		0.250*** (7.513)
<i>LAG_BT D</i>			0.176*** (7.459)	
Intercept	-0.443*** (-20.887)	-0.030*** (-3.208)		
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Adjusted R^2	0.167	0.319	0.145	0.326
N	5,825	5,825	5,236	5,236

Table 12 Robustness Check: Alternative Measure of Conforming Tax Avoidance

This table reports the results for the seemingly unrelated regressions of the alternative tax avoidance measures on the institutional shareholder distraction measure. Specifically, the table reports the results when the conforming tax avoidance measure, *CONFORM_TAX*, is replaced by *CONFORM_TAX_PI*. All the continuous variables are winsorized at the 1st and 99th percentiles. See the Appendix for variable definitions. z-statistics based on robust standard errors clustered by firms are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1) <i>CASH ETR</i>	(2) <i>CONFORM TAX PI</i>
<i>DISTRACTION</i>	0.049 (0.426)	-0.053** (-2.443)
<i>INST_OWN</i>	0.006 (0.405)	0.003 (1.186)
<i>INST_OWN_HHI</i>	0.162*** (3.920)	0.035*** (4.193)
<i>ACQUISITION_D</i>	-0.001 (-0.253)	-0.002** (-2.275)
<i>EBIT</i>	0.106*** (6.873)	
<i>MGR_ABILITY</i>	-0.048* (-1.863)	-0.049*** (-10.410)
<i>LOG_ASSETS</i>	0.006** (2.327)	0.008*** (16.506)
<i>PPE</i>	0.041*** (4.613)	
<i>INT_EXP</i>		0.221*** (5.687)
Intercept	-0.428*** (-8.040)	-0.063*** (-7.686)
Industry FE	Yes	Yes
Year FE	Yes	Yes
Adjusted R ²	0.107	0.198
N	5,545	5,545

Table 13 Robustness Check: Alternative Measure of Managerial Ability

This table reports the results for the seemingly unrelated regressions of the tax avoidance measures on institutional shareholder distraction with an alternative measure of managerial ability, i.e., the *General Ability Index*. All the continuous variables are winsorized at the 1st and 99th percentiles. See the Appendix for variable definitions. z-statistics based on robust standard errors clustered by firms are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1) <i>CASH ETR</i>	(2) <i>CONFORM TAX</i>
<i>DISTRACTION</i>	0.143 (0.966)	-0.092*** (-3.405)
<i>INST_OWN</i>	0.060** (2.550)	0.016*** (3.607)
<i>INST_OWN_HHI</i>	0.229* (1.756)	0.062*** (2.723)
<i>ACQUISITION_D</i>	-0.010 (-1.397)	-0.007*** (-5.383)
<i>EBIT</i>	-0.026 (-1.447)	-0.067*** (-11.742)
<i>MGR_GAI</i>	0.003 (0.764)	0.001 (1.000)
<i>LOG_ASSETS</i>	0.000 (0.114)	0.003*** (3.942)
<i>PPE</i>	0.024** (2.266)	
<i>INT_EXP</i>		0.123** (2.245)
Intercept	-0.511*** (-11.534)	-0.027* (-1.930)
Industry FE	Yes	Yes
Year FE	Yes	Yes
Adjusted R^2	0.110	0.304
N	2,520	2,520

Table 14 Robustness Check: Controlling for Earnings Management

This table reports the results for the seemingly unrelated regressions of the tax avoidance measures on the institutional shareholder distraction measure. The regressions additionally include *PMDA* to control for earnings management. All the continuous variables are winsorized at the 1st and 99th percentiles. See the Appendix for variable definitions. z-statistics based on robust standard errors clustered by firms are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1) <i>CASH ETR</i>	(2) <i>CONFORM TAX</i>
<i>DISTRACTION</i>	0.091 (0.810)	-0.046** (-2.290)
<i>INST_OWN</i>	0.002 (0.151)	0.003 (1.229)
<i>INST_OWN_HHI</i>	0.117*** (2.690)	0.030*** (4.159)
<i>PMDA</i>	-0.033* (-1.735)	-0.016*** (-4.556)
<i>ACQUISITION_D</i>	-0.007 (-1.305)	-0.005*** (-5.593)
<i>EBIT</i>	-0.014 (-1.197)	-0.064*** (-15.071)
<i>MGR_ABILITY</i>	0.015 (0.593)	-0.018*** (-4.250)
<i>LOG_ASSETS</i>	0.001 (0.316)	0.003*** (7.475)
<i>PPE</i>	0.042*** (5.019)	
<i>INT_EXP</i>		0.168*** (5.696)
Intercept	-0.546*** (-4.056)	-0.026** (-2.448)
Industry FE	Yes	Yes
Year FE	Yes	Yes
Adjusted R^2	0.115	0.319
N	5,663	5,663

Table 15 Mediating Role of Earnings Management

This table reports the results for testing the mediating role of earnings management. Specifically, the first (last) two columns report the results for the seemingly unrelated regressions of the tax avoidance measures on the institutional shareholder distraction measure excluding (including) the earnings management measure as a control variable. All the continuous variables are winsorized at the 1st and 99th percentiles. See the Appendix for variable definitions. z-statistics based on robust standard errors clustered by firms are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1) <i>CASH_ETR</i>	(2) <i>CONFORM_TAX</i>	(3) <i>CASH_ETR</i>	(4) <i>CONFORM_TAX</i>
<i>DISTRACTION</i>	0.087 (0.781)	-0.048** (-2.378)	0.091 (0.810)	-0.046** (-2.290)
<i>INST_OWN</i>	0.002 (0.147)	0.003 (1.216)	0.002 (0.151)	0.003 (1.229)
<i>INST_OWN_HHI</i>	0.116*** (2.666)	0.030*** (4.081)	0.117*** (2.690)	0.030*** (4.159)
<i>ACQUISITION_D</i>	-0.007 (-1.223)	-0.005*** (-5.396)	-0.007 (-1.305)	-0.005*** (-5.593)
<i>EBIT</i>	-0.013 (-1.072)	-0.063*** (-15.079)	-0.014 (-1.197)	-0.064*** (-15.071)
<i>MGR_ABILITY</i>	0.014 (0.546)	-0.019*** (-4.383)	0.015 (0.593)	-0.018*** (-4.250)
<i>LOG_ASSETS</i>	0.001 (0.376)	0.004*** (7.640)	0.001 (0.316)	0.003*** (7.475)
<i>PPE</i>	0.042*** (5.009)		0.042*** (5.019)	
<i>INT_EXP</i>		0.171*** (5.832)		0.168*** (5.696)
<i>PMDA</i>			-0.033* (-1.735)	-0.016*** (-4.556)
Intercept	-0.544*** (-4.007)	-0.025** (-2.459)	-0.546*** (-4.056)	-0.026** (-2.448)
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Adjusted R ²	0.115	0.315	0.115	0.319
N	5,663	5,663	5,663	5,663
p-value for testing the difference in coefficients of <i>DISTRACTION</i>	0.3628	0.3002	0.3628	0.3002