TOP INSTITUTIONAL INVESTORS AND ACCOUNTING COMPARABILITY

Thien Le [*]

* Department of Accounting & Finance, College of Business, Texas A&M University-Commerce, Texas, the USA
Contact details: College of Business, Texas A&M University-Commerce, 2200 Campbell St, Commerce, TX 75428, the USA

OPEN ACCESS

Abstract

This study examines the relation between firm pair's sharing of a top institutional investor (i.e., an institutional investor with the largest shareholding) and accounting comparability. Using data from Compustat, CRSP, and Thompson Reuters over the 1993–2017 period, the study finds that firm pairs that share the top institutional investor exhibit higher accounting comparability than other firm pairs. In addition, firm pairs whose top institutional investors are monitoring institutions (regardless of whether they are the same institutions) exhibit greater comparability than other firm pairs whose top institutional investors are non-monitoring institutions. Collectively, the study contributes to existing research on accounting comparability and large institutional investors by showing that the sharing of top institutional investors is an important determinant of accounting comparability.

Keywords: Corporate Governance, Institutional Shareholder, Shareholder Activism, Accounting Comparability

1. INTRODUCTION

This study examines whether firms that have the same top institutional investor (TII) exhibit higher levels of accounting comparability[1]. The Financial Accounting Standards Board (FASB) defines comparability as the property of accounting information that "enables financial statement users to identify similarities in and differences between two sets of economic phenomena" (FASB, 1980, p. 6). Under the US accounting framework, comparability enhances the usefulness of accounting information by allowing financial statement users to compare information across firms and time. In addition, comparability increases the accounting information available to the market, thus inducing more efficient capital allocation (De Franco, Kothari, & Verdi, 2011).

Given the importance of this qualitative characteristic of accounting information, prior study has called for more research on the determinants of

---

[1] In this study, I focus on intra-industry comparability, which is the comparability of a firm with its industry peers, to control for common economic shocks and to alleviate concerns regarding heterogeneity in accounting practices across different industries (Francis, Pinnuck, & Watanabe, 2014). Throughout the remainder of this paper, I will refer to intra-industry accounting comparability as accounting comparability for conciseness.

accounting comparability (Francis et al., 2014). Early studies such as Barth, Landsman, Lang, and Williams (2012) and Wang (2014) find that the convergence of accounting standards as the primary determinant of cross-country accounting comparability. Other studies such as Francis et al. (2014) and Chen, Chen, Chin, and Lobo (2019) document that sharing the same audit firm, or audit partner, improves earnings comparability between client firms through the homogeneous applications of the accounting rules. Fang, Maffett, and Zhang (2015) show that the level of institutional ownership by US mutual funds in foreign firms is positively related to cross-country accounting comparability. This motivates my investigation of the influence of top institutional investors on accounting comparability.

This study provides incremental contributions over Fang et al. (2015) in two important ways. First, unlike Fang et al. (2015), who investigate whether the level of institutional ownership by US mutual funds affects cross-country accounting comparability, my study examines whether the sharing of TIIs is associated with accounting comparability between firms that operate in the same country (US firms) and under the same set of financial reporting standards (US GAAP)[2]. This is consistent with my motivation to examine the influence of institutional investors on accounting comparability beyond the adoption of the same accounting standards. Second, my study provides an in-depth analysis of the impact of different types of institutional investors on comparability, whereas Fang et al. (2015) only consider one type of institutional investor, mutual funds, in their main tests.

In this study, I posit that two firms that share a TII will exhibit greater accounting comparability for the following reasons. First, given their high level of ownership in corporations, TIIs have significant control rights and greater access to management, which gives these investors greater ability to influence a firm's corporate outcomes compared to other shareholders (Admati & Pfleiderer, 2009; Dou, Hope, Thomas, & Zou, 2018; McCahery, Sautner, & Starks, 2016; Shleifer & Vishny, 1997; Zeckhauser & Pound, 1990).

Second, TIIs also have a greater incentive to monitor the firm's financial reporting process to mitigate the moral hazard, given their high level of investment at stake. Prior studies document that an investor's incentive to monitor management increases with the level of investment and the monitoring decision involves a cost-benefit trade-off (Bhojraj & Sengupta, 2003; Brickley, Lease, & Smith, 1988; Bushee, 1998; Demsetz, 1983; Ferreira & Matos, 2008; Gillan & Starks, 2000, 2003; Gompers & Metrick, 2001; Jensen & Meckling, 1976; Schleifer & Vishny, 1986).

Third, I argue that TIIs that invest in many same-industry firms can also accumulate more information about the industry's financial reporting practices. Recent studies show that large institutional investors are able to accumulate more governance-

relevant information and monitoring experience through their investments, which enhance their abilities and incentives to monitor (Edmans, Levit, & Reilly, 2019; Kang, Luo, & Na, 2018). Given the information spillover, TIIs are better able to detect abnormal accounting practices and intervene to align the firm's accounting practices with those of its peer firms. Therefore, I expect that a firm-pair that shares a TII will exhibit greater accounting comparability than a firm-pair that does not.

I also explore whether TIIs' influence on accounting comparability varies with their monitoring incentives. Brickley et al. (1988) document that an institutional investor's incentive and ability to monitor management vary with the implicit monitoring cost. Following Brickley et al. (1988), I classify institutional investors into two main groups: non-monitoring institutional investors, which include banks and insurance companies, and monitoring institutional investors, which include independent investment advisors, investment companies, pension funds, and endowments. I expect that monitoring institutions will exert greater influence over a firm's financial reporting decisions than non-monitoring institutions, and predict that firm-pairs whose TIIs are monitoring institutions will exhibit greater accounting comparability than other firm-pairs.

The primary sample for the empirical analysis comprises all US firm-pairs in the same 2-digit Standard Industrial Classification (SIC) code industry in a given year, spanning the 1991–2017 period. I follow De Franco et al. (2011) and define comparability as the closeness between a pair of firms' accounting functions that map economic activities to accounting outcomes. As I measure accounting comparability using data over 16 consecutive quarters, I define a firm's TII as the investor that, on average, has the largest holdings over the corresponding 16 quarters. This requirement also restricts the primary sample to TIIs with long investment horizons and stable holdings that have more incentives to monitor management's decisions (Bushee, 1998; Zeckhauser & Pound, 1990).

Consistent with my main prediction, I find that firm-pairs that share a TII exhibit greater accounting comparability. In addition, I also find that firm-pairs whose TIIs are both monitoring institutions exhibit greater accounting comparability than other firm-pairs. Additional analyses also reveal that among firm-pairs that share a TII, there are no incremental effects on accounting comparability if that investor is also a monitoring institution. However, among firm-pairs that have a different TII, accounting comparability is greater if both institutional investors are monitoring institutions.

To complement the main findings, I also conduct matched-pairs, difference-in-differences analyses to examine the effect of a firm-pair's change to (from) the same institutional investor on accounting comparability. Using propensity-score matched samples, I find that accounting comparability increases following a change from different TIIs to the same TII, and decreases following a change from the same TII to different TIIs. These findings reinforce the main result that accounting comparability is higher when firms have

---

[2] Consistent with De Franco et al. (2011) and Francis et al. (2014), I focus only on US firms to examine how institutional factors influence accounting comparability in a single-standard setting, and to control for the homogeneity of the business environment and legal jurisdiction.

the same TII. For robustness, I also test the main hypotheses using an alternative measure of accounting comparability that is adjusted for accounting conservatism and find qualitatively similar results.

My study makes several contributions to the literature. First, it contributes to the literature on the determinants of accounting comparability. Specifically, I demonstrate that the sharing of a TII enhances accounting comparability between industry peers. Consistent with prior works (Chen et al., 2019; Fang et al., 2015; Francis et al., 2014), the results support the notion that economic agents play an important role in shaping financial reporting comparability beyond the accounting standards.

Second, this study contributes to the literature on the role of institutional investors in corporate decision-making. My findings indicate that institutional investors exert significant influence on accounting comparability, which is a key financial reporting quality. In addition, my study contributes to the literature on the effect of the heterogeneity of large shareholders on corporate outcomes by showing that an institutional investor's influence on accounting comparability depends on its monitoring costs.

Lastly, this study contributes to the emerging literature on the influence of common ownership on corporate outcomes. Recent studies document that common ownership influences managerial incentives (Anton, Ederer, Gine, & Schmalz, 2018; Backus, Conlon, & Sinkinson, 2019; Gilje, Gormley, & Levit, 2019), competitive behavior (Azar, Schamlz, & Tecu, 2018; He & Huang, 2017; Koch, Panayides, & Thomas, 2020), and corporate governance (Edmans et al., 2019). My study adds to this literature by showing that common ownership by the TII also has implications for the quality of reported accounting information.

The remainder of this study proceeds as follows. Section 2 discusses the relevant literature and develops the hypotheses. Section 3 presents the empirical measures and research design. Section 4 discusses and interprets the empirical results, and Section 5 concludes with limitations and implications for future research.

2. LITERATURE REVIEW

2.1. Accounting comparability

The FASB defines comparability as the quality of accounting information that "enables financial statement users to identify similarities in and differences between two sets of economic phenomena" (FASB, 1980, p. 6). One of the primary purposes of establishing accounting standards is to facilitate the comparability of financial information among different entities (Schipper, 2003). Arguably, greater comparability improves the quality of accounting information (De Franco et al., 2011). In the capital market setting, greater accounting comparability expands the information set available to financial statement users and allows them to draw meaningful inferences from comparable firms' financial information. Ultimately, greater

comparability will lead to a more efficient capital allocation by market participants.

Prior studies find that greater accounting comparability improves other properties of accounting information, and results in multiple capital market benefits. These improvements and benefits include greater value relevance of accounting information, lower abnormal returns to insiders' purchases, better liquidity, higher Tobin's Q, more accurate analysts' forecasts, and greater forecast agreement (Barth et al., 2012; Brochet, Jagolinzer, & Riedl, 2013; Neel, 2017). Higher accounting comparability is also associated with more efficient lending decisions (Kim, Kraft, & Ryan, 2013), lower perceived crash risk (Kim, Li, Lu, & Yu, 2016), lower cost of capital (Imhof, Seavey, & Smith, 2017). In addition, greater accounting comparability allows firms to make better acquisition decisions (Chen, Collins, Kravet, & Mergenthaler, 2018) and to design more efficient relative performance evaluation contracts (Lobo, Neel, & Rhodes, 2018).

Prior studies also document the determinants of accounting comparability. Inherently, the convergence of accounting standards is one of the most important determinants of accounting comparability. Barth et al. (2012) demonstrate that IFRS adoption enhances accounting comparability between non-US firms and US firms through the improvement in three key accounting qualities: earnings smoothing, accrual quality, and timeliness. Yip and Young (2012) and Wang (2014) find that the mandatory adoption of IFRS significantly improves information comparability through greater cross-country information transfer and more similar information content of earnings and book value. However, Daske, Hail, Leuz, and Verdi (2013) and Cascino and Gassen (2015) find that the heterogeneity in firms' compliance incentives and discretion in the implementation of standards also dampen the comparability benefits of the standards convergence. Collectively, these findings suggest that institutional factors also influence accounting comparability beyond the adoption of the common accounting standards.

Consistent with that view, Francis et al. (2014) document that earnings comparability is positively associated with the similarity in audit firms. Specifically, the authors find that firm pairs audited by the same Big 4 audit firms exhibit greater earnings comparability than firm pairs audited by different Big 4 audit firms. The primary argument is that each audit firm's unique audit style results in a more homogeneous application of the accounting standards, which improves accounting comparability between client firms. Consistent with this rationale, Chen et al. (2019) find that earnings comparability is even more significantly associated with the similarity in audit partners. These findings suggest that the shared network of economic agents has important implications for accounting comparability among firms.

Fang et al. (2015) examine the effect of US mutual funds on the accounting comparability between foreign and US firms. Focusing on firms in emerging markets, the authors show that these firms' accounting becomes more comparable to their US peers as the level of US mutual fund ownership

increases. Their results suggest that institutional investors are not passive bystanders when it comes to firms' financial reporting decisions.

2.2. Top institutional investors

Over the past decades, institutional investors have emerged as an important part of the corporate ownership structure. As of 2017, institutional holdings accounted for almost 70 percent of all corporate equity in the US[3]. In their survey of firms' executives, Graham, Harvey, and Rajgopal (2006) find that executives consider institutions as the most important class of investors for their firms. Prior research also documents that institutions are sophisticated investors, whose superior information-seeking and information-processing abilities improve market efficiency (Bartov, Radhakrishnan, & Krinsky, 2000; Hand, 1990; O'Brien & Bhushan, 1990; Shiller & Pound, 1989).

Prior research in accounting also provides evidence on how institutional investors influence earnings quality. Bushee (1998) finds evidence that firms are less likely to engage in real earnings management in the presence of large institutional investors. Chung, Firth, and Kim (2002), Hsu and Koh (2005), and Mitra and Cready (2005) demonstrate that the presence of large institutional investors is negatively associated with accruals-based earnings management. Ajinkya, Bhojraj, and Sengupta (2005) document that the level of institutional ownership is positively associated with a firm's voluntary disclosure through earnings forecasts and negatively associated with the managerial optimism in these forecasts. These studies show that active monitoring by institutional investors helps improve the quality of accounting information and mitigate opportunism in financial reporting.

Large institutional investors also tend to have significant holdings in multiple firms within the same industry. Backus et al. (2019) show that common ownership by large institutional investors has increased significantly in the US from 1980 to 2017. This gives rise to the common ownership hypothesis, which states that an investor who invests in multiple firms in the same industry has the incentive to optimize the joint profits of all of these firms, rather than the profit of any single firm (Backus et al., 2019). Therefore, this investor, or common owner, has the incentive to influence each portfolio firm to internalize its peer (or rival) firm's profits in making strategic decisions.

Consistent with the common ownership hypothesis, recent studies provide evidence suggesting that common ownership by large institutional investors influences corporate strategic decisions and peer firms' competitive behavior. Azar et al. (2018) show that a high level of common ownership leads to anticompetitive behavior in the airline industry. He and Huang (2017) find that greater common ownership results in greater product market collaboration between firms, which improves the firms' market share growth, innovation, and profitability. Consistent with this result, Lopez

and Vives (2020) show that common ownership can increase firms' R&D investments and outputs.

Common ownership by large institutional investors can also influence managerial incentives and corporate governance. Edmans et al. (2019) develop a model to predict that common ownership leads to strengthened governance mechanisms. The model shows that common ownership improves price informativeness, which incentivizes managers to increase efforts to improve the firm's value. Consistent with this prediction, Kang et al. (2018) find that institutional investors' monitoring effectiveness increases with the number of blockholdings in the same industry. The study suggests that institutional investors with multiple blockholdings are able to accumulate greater governance-relevant information and monitoring experience through their networks of portfolio firms. Collectively, these studies suggest that institutional investors' influence on corporate outcomes is greater when they maintain large holdings in multiple firms.

2.3. The relation between top institutional investors and accounting comparability

In this study, I focus only on the institutional investor with the largest shareholding and posit that the TII can affect the accounting comparability for the following reasons. First, TIIs have a greater ability to influence financial reporting decisions compared to other shareholders. As the largest investors, TIIs have high control rights and voting power and, therefore, can exert influence on firms' corporate decisions (Shleifer & Vishny, 1986, 1997). If the TIIs are not satisfied with the firms' performance or governance, they can either engage with the management for changes or take disciplinary actions by voting with their feet (selling their shares) (Admati & Pfleiderer, 2009; Carleton, Nelson, & Weisbach, 1998; Gillan & Starks, 2000; Smith, 1996). However, for institutional investors with stable and high equity stakes, a credible threat of exit may suffice as an effective governance device to influence management's decisions (McCahery et al., 2016; Zeckhauser & Pound, 1990).

Second, given the substantial investment at stake, TIIs have a greater incentive to monitor the financial reporting process to reduce moral hazard. Previous studies show that an investor's incentive to monitor increases with the level of investment (Demsetz, 1983; Huddart, 1993; Jensen & Meckling, 1976; Kahn & Winton, 1998; Maug, 1998; Shleifer & Vishny, 1986). These studies also show that large institutional investors are an efficient external monitoring mechanism that helps mitigate the agency cost between stakeholders and managers (Coffee, 1991; Hartzell & Starks, 2003). Compared to an institutional investor, small and individual investors lack the incentive to monitor due to the disproportionately high monitoring cost and tend to free-ride on the larger investors' monitoring efforts.

Third, TIIs that invest in multiple firms within the same industry have enhanced monitoring abilities due to information spillover. Recent studies show that large institutional investors accumulate

---

[3] I compute this figure based on US institutional holdings data from Thomson Reuters 13F database.

more governance-relevant information and monitoring experience through their investments, which enhance their abilities and incentives to monitor (Edmans et al., 2019; Kang et al., 2018). In the context of financial reporting, information spillover allows TIIs to better detect abnormal accounting practices and intervene to align the firm's accounting practices with those of its peer firms. This will ultimately improve accounting comparability among their portfolio firms. Given the above rationale, I conjecture that firm pairs that share a TII will exhibit greater accounting comparability, due to the investor's unique influence on the firms' financial reporting systems. Thus, I state my first hypothesis in the alternative form as:

Hypothesis 1 (H1): A firm-pair that shares the same top institutional investor will exhibit greater accounting comparability than a firm-pair that does not share the same top institutional investor.

Nonetheless, I may not find evidence consistent with my prediction for the following reasons. First, TIIs that take a passive approach towards corporate policies may not have significant influence over a firm's financial reporting outcomes. Second, TIIs are not as directly involved with the firm's financial reporting process as other economic agents, such as auditors. Third, prior studies suggest that the controlling institutional investors may have incentives to obscure the firm's financial reporting to extract private benefits from their information advantages (Ali, Durtschi, Lev, & Trombley, 2004; Bushee & Goodman, 2007; Fang et al., 2015; Ke & Petroni, 2004; Maffett, 2012). These studies find that opaque financial reporting allows institutional investors to benefit from private informed trading, which suggests that these institutional investors may prefer low accounting comparability. Accordingly, the relationship between the sharing of a TII and accounting comparability remains an empirical question.

2.4. The relation between the types of top institutional investors and accounting comparability

My second hypothesis examines whether the relationship between TIIs and accounting comparability varies with the type of institutional investor. Prior studies establish that institutional investors differ with respect to their trading behavior, monitoring incentives, fiduciary duties and expertise on corporate governance. Brickley et al. (1988) and Van Nuys (1993) provide empirical evidence that institutional investors such as banks, non-bank trusts, and insurance companies are more sensitive to management pressure and, therefore, are less likely to oppose management's controversial decisions. These institutional investors that are typically financial intermediaries, face high monitoring costs due to their current or potential business relationships with the portfolio firms[4].

In contrast, institutions such as mutual funds, foundations, and public-employee pension funds are more likely to voice their concerns or dissents with the management, due to lower monitoring cost. Since these institutional investors are more independent of the firm's underlying business, they are less susceptible to management pressure and are more active in monitoring management's decision-making. These investors are also more likely to vote against the management in cases involving controversial decisions (Brickley et al., 1988).

Since Brickley et al. (1988), other studies also provide supporting evidence on how different types of institutional investors influence firms' corporate outcomes and investment policies. Almazan, Hartzell, and Starks (2005) report that monitoring institutional investors has a stronger influence on management's pay-for-performance sensitivity and the level of compensation package than non-monitoring institutional investors. Likewise, Chen, Harford, and Li (2007) find that the level of ownership by monitoring institutional investors is positively associated with post-merger performance. Collectively, these studies suggest that the level of monitoring intensity is contingent upon the type of institutional investors.

Following Brickley et al. (1988), I classify institutional investors into two main groups: monitoring and non-monitoring institutions. Monitoring institutions include investment companies, independent investment advisors, public or private pension funds and endowments, while non-monitoring institutions include banks and insurance companies. Based on the level of monitoring intensity, I propose that firm-pairs with monitoring TIIs will exhibit greater accounting comparability than firm-pairs with non-monitoring TIIs. Second, I conjecture that firm-pairs with monitoring TIIs (regardless of whether or not they are the same investor) will also exhibit greater accounting comparability than firm-pairs whose TIIs are of different type (one monitoring institution and one non-monitoring institution), due to the diverging monitoring incentives of the institutional investors in the latter group. I state my second hypothesis in the alternative form:

Hypothesis 2 (H2): A firm-pair whose top institutional investors are both monitoring institutions will exhibit greater accounting comparability than a firm-pair whose top institutional investors are not both monitoring institutions.

H2 is less restrictive than *H1* because it focuses only on the similarity in the TIIs' monitoring incentives, rather than on the similarity in the investors themselves, as a determinant of financial statement comparability. Nevertheless, I may not find results consistent with the above prediction for the following reasons. First, the monitoring institutional investors' interference with the firm's financial reporting decisions may not always result in favorable outcomes, since management is more informed about the firm's underlying business and, therefore, can make optimal financial reporting decision that reflect the firm's underlying fundamentals (Burkart, Gromb, & Panunzi, 1997; Gillan & Starks, 2003). Second, over-monitoring by institutional investors may pressure management

---

[4] Banks and insurance companies are also investment intermediaries that have other firms and institutions as their clients. In addition to being a shareholder, a major investment bank can provide the firm with services such as financing, M&A advisory, SEO underwriting, transaction and trading, etc. Insurance companies can underwrite insurance policies for the portfolio firm. For these institutions, a portfolio firm can be both a source of investment and a source of revenue.

into making suboptimal financial reporting decisions to meet short-term targets, which may reduce the accounting comparability between firms. Third, different institutional investors with different monitoring mechanisms will exert different forces on firms' financial reporting systems, which may negatively affect accounting comparability.

3. RESEARCH METHODOLOGY

3.1. Empirical measure

Following De Franco et al. (2011), I define accounting comparability as the similarity in the accounting functions that map a firm's economic events to accounting outcomes. Under this approach, economic events are measured by quarterly stock returns, and corresponding accounting outcomes are measured by quarterly earnings. To compute accounting comparability, I first create combinations of firm-pairs by matching each firm i and firm j within the same 2-digit SIC code industry in a given year. Then, I estimate each firm's accounting function with the following rolling-window time-series regression, using 16 consecutive quarterly earnings-returns observations:

$$EARNINGS_{it} = \alpha_i + \beta_i RETURN_{it} + \varepsilon_{it} \quad (1)$$

$$EARNINGS_{jt} = \alpha_j + \beta_j RETURN_{jt} + \varepsilon_{jt} \quad (2)$$

where, $EARNINGS_{it(jt)}$ is firm $i(j)$'s earnings before extraordinary items in quarter t, deflated by the market value of equity at the beginning of the quarter, and $RETURN_{it(jt)}$ is firm $i(j)$'s stock return in quarter t. I then use the estimated parameters $\hat{\alpha}_i, \hat{\beta}_i$ and $\hat{\alpha}_j, \hat{\beta}_j$ from regression equations (1) and (2) to calculate the expected earnings of each firm. Using firm i's returns, $E(EARNINGS)_{iit}$ is firm i's expected earnings based on firm i's parameters, and $E(EARNINGS)_{ijt}$ is firm i's expected earnings based on firm j's parameters (and vice versa for firm j), I compute the following:

$$E(EARNINGS)_{iit} = \hat{\alpha}_i + \hat{\beta}_i RETURN_{it} \quad (3)$$

$$E(EARNINGS)_{ijt} = \hat{\alpha}_j + \hat{\beta}_j RETURN_{it} \quad (4)$$

$$E(EARNINGS)_{jit} = \hat{\alpha}_i + \hat{\beta}_i RETURN_{jt} \quad (5)$$

$$E(EARNINGS)_{jjt} = \hat{\alpha}_j + \hat{\beta}_j RETURN_{jt}{}^5 \quad (6)$$

Using the expected earnings from regression equations (3), (4), (5) and (6), I then compute the accounting comparability measure for each unique firm-pair i-j as follows. I measure the comparability of firm i to firm j, $ACCTCOMP_{ijt}$, as the average of the absolute difference between $E(EARNINGS)_{iit}$ and $E(EARNINGS)_{ijt}$. Similarly, I measure the comparability of firm j to firm i,

$ACCTCOMP_{jit}$, as the average of the absolute difference between $E(EARNINGS)_{jit}$ and $E(EARNINGS)_{jjt}$. A smaller difference indicates greater accounting comparability between the two firms. To facilitate interpretation, I multiply the difference by (-1) so that higher values indicate greater accounting comparability. For every unique combination of firm pair i-j, the firm-pair-year comparability measure is the average value of $ACCTCOMP_{ijt}$ and $ACCTCOMP_{jit}$, computed as follows:

$$ACCTCOMP_{ijt} = {-1}/{16} * \textstyle\sum_{t-15}^{t}|E(EARNINGS)_{iit} - E(EARNINGS)_{ijt}| \quad (7)$$

$$ACCTCOMP_{jit} = {-1}/{16} * \textstyle\sum_{t-15}^{t}|E(EARNINGS)_{jjt} - E(EARNINGS)_{jit}| \quad (8)$$

$$ACCTCOMP_{i,j,t} = (ACCTCOMP_{ijt} + ACCTCOMP_{jit})/2 \quad (9)$$

To assess the robustness of the findings, I use an alternative measure of comparability that adjusts for accounting conservatism. For this measure, I allow the earnings-returns relationship to be non-linear to account for the firm's asymmetric response to gains and losses (Basu, 1997). Specifically, instead of the simple earnings-returns regression, I estimate each firm's accounting function with the following time-series regression in the first step:

$$EARNINGS_{it} = \alpha_i + \beta_{1i} RETURN_{it} + \beta_{2i} D_{it} + \beta_{3i} RETURN_{it} * D_{it} + \varepsilon_{it}$$

$$EARNINGS_{jt} = \alpha_j + \beta_{1j} RETURN_{jt} + \beta_{2j} D_{jt} + \beta_{3j} RETURN_{jt} * D_{jt} + \varepsilon_{jt}$$

where, $EARNINGS_{it(jt)}$ is firm $i(j)$'s earnings before extraordinary items in quarter t, deflated by the market value of equity at the beginning of the quarter; $RETURN_{it(jt)}$ is firm $i(j)$'s stock return in quarter t; and $D_{it(jt)}$ is an indicator variable that equals 1 if the return is negative in quarter t, and 0 otherwise. In the second step, I use each firm's estimated parameter $\hat{\alpha}, \hat{\beta}_1, \hat{\beta}_2$, and $\hat{\beta}_3$ to measure each firm's expected earnings, following the procedures similar to those from regression equations (3) to (6)[6]. In the last step, I measure the firm-pair's accounting comparability using equations (7) to (9). I refer to this alternative comparability measure as the $ACCTCOMPAT$ (AT stands for asymmetric timeliness).

To identify a firm's TII, I first retrieve the institutional equity holdings for all possible institutions from the Thomson Reuters 13F database[7]. Since I measure accounting comparability using data over 16 consecutive quarters, I define a firm's TII for any given year as the investor with the highest average level of institutional holdings

---

[5] $E(Earnings)_{iit}$ is firm i's predicted earnings using firm i's accounting parameters, while $E(Earnings)_{ijt}$ is firm i's predicted earnings using firm j's accounting parameters. Vice versa, $E(Earnings)_{jit}$ is firm j's predicted earnings using firm i's accounting parameters, while $E(Earnings)_{jjt}$ is firm j's predicted earnings using firm j's accounting parameters.

[6] For example, $E(EARNINGS)_{iit} = \hat{\alpha}_i + \hat{\beta}_{1i} RETURN_{it} + \hat{\beta}_{2i} D_{it} + \hat{\beta}_{3i} RETURN_{it} * D_{it}$.
[7] Starting from 1975, any institution that invests an amount greater than $100 million is required to file Form 13F with the SEC at the end of each quarter.

over the previous 16 consecutive quarters[8]. The aggregation of institutional ownership implicitly requires that the institution must hold the firm's shares for at least 16 consecutive quarters. This requirement constrains the sample to TIIs with long investment horizon and ongoing presence, that have greater incentives to monitor management and to voice their concerns rather than to exit (Bushee, 1998; Chen et al., 2007; Kang et al., 2018; McCahery et al., 2016). As part of the additional analysis, I expand the definition of the TII to include a firm's top three institutional investors in terms of institutional holdings. Based on this definition, a pair of firms that share any of their top three largest institutional investors are considered as having a common TII[9].

To identify an institutional investor's type, I rely on both Thomson Reuters' and professor Brian Bushee's classifications. Thomson Reuters classifies institutional investors into five different categories: 1) banks, 2) insurance companies, 3) investment companies, 4) independent investment managers, and 5) other types (which include corporate and public pension funds, university and foundation endowments, and miscellaneous). However, Thomson Reuters' classification scheme became inaccurate after 1998, as many institutional investors in the first four categories were inaccurately grouped into the fifth category ("other")[10]. To remedy this inaccuracy, I rely on Bushee's institutional investor classification[11], which corrects Thomson Reuters' misclassification.

3.2. Research design

To test *H1*, which examines the relationship between having a common TII and accounting comparability, I follow the research design in Francis et al. (2014) and estimate the following OLS regression:

$$ACCTCOMP_{i,j,t} = \alpha + \beta_1 SAME\_TOP\_INST_{i,j,t} + \sum CONTROLS + IndFE + YearFE + \varepsilon_{i,j,t} \qquad (10)$$

where, $ACCTCOMP_{i,j,t}$ is the firm-pair *i-j* accounting comparability in year *t*, $SAME\_TOP\_INST$ is an indicator variable that equals 1 if firm-pair *i-j* shares the TII in year t, and 0 otherwise. $\Sigma CONTROLS$ is the vector of variables that control for firm-pair *i-j* characteristics. *IndFE* and *YearFE* are industry (based on 2-digit SIC code) and year fixed effects. For *H1*, β_1 denotes the difference in accounting comparability between firm-pairs that

have the same TII and firm-pairs that do not. *H1* predicts that β_1 is positive.

To test *H2*, which examines the relation between accounting comparability and TII type, I estimate the following OLS regression:

$$ACCTCOMP_{i,j,t} = \alpha + \beta_1 MONITORING_{i,j,t} + \beta_2 NON\_MONITORING_{i,j,t} + \sum CONTROLS + IndFE + YearFE + \varepsilon_{i,j,t} \qquad (11)$$

where, $MONITORING_{i,j,t}$ is an indicator variable that equals 1 if the TIIs of firm-pair *i-j* in year *t* are both monitoring institutions (regardless of whether they are the same institution), and 0 otherwise. $NON\_MONITORING_{i,j,t}$ is an indicator variable that equals 1 if the TIIs of firm-pair *i-j* in year *t* are both non-monitoring institutions (regardless of whether they are the same institution), and 0 otherwise[12]. For *H2*, β_1 (β_2) denotes the difference between the comparability of firm-pairs that have both TIIs that are monitoring (non-monitoring) investors and firm-pairs that have one monitoring and one non-monitoring TII. *H2* predicts that the difference between β_1 and β_2 is positive.

I follow Francis et al. (2014) and control for both the differences and the levels in firm-pair fundamental characteristics and economic performance. Specifically, I include the following variables: institutional ownership (*IOR*), size (*SIZE*), leverage (*LEV*), book-to-market ratio (*BTM*), return on assets (*ROA*), total accruals (*ACCR*), cash flows from operations (*CFO*), cash flows volatility (*CFO_VOL*), sales volatility (*SALES_VOL*), sales growth (*SALES_GROWTH*), sales growth volatility (*SALES_GROWTH_VOL*), and the probability of incurring loss (*LOSS*). Since I measure comparability and institutional holdings using data from 16 consecutive quarters (or 4 consecutive years), I first aggregate the firm characteristics over the corresponding 16 quarters. Next, I compute the "difference" metrics as the absolute difference between the firm-pair characteristic and compute the "level" metrics as the minimum value of the firm-pair characteristics.

Following Francis et al. (2014), I control for common economic shocks by including the firm-pair's cash flows covariation (*CFO_COV*) and returns covariation (*RET_COV*) over the corresponding 16 quarters. In addition, I control for whether firms share the same audit firm (*SAME_AUD*), as prior studies show that auditors influence accounting comparability (Chen et al., 2019; Francis et al., 2014). Finally, I include industry-fixed effects to control for the possible correlation between accounting comparability and industry characteristics, and include year-fixed effects to control for changes in macroeconomic and regulatory trends. I winsorize all continuous variables at the top and bottom percentiles each year to mitigate the effect of extreme values, and report standard errors clustered at the firm-pair level for all of the analyses. I provide detailed variable definitions in Appendix.

---

[8] As Form 13F reports each institutional equity holdings on a quarterly basis, the aggregate institutional ownership over 16 consecutive quarters is computed as the ratio of the average institutional shares holding over the firm's average total shares outstanding over the corresponding 16 quarters. I then rank institutional investors based on their average level of institutional ownership over that same period.

[9] This definition significantly expands the subsample of firm-pairs that share the same institutional investors, since there are now 9 possible cases: $i_1 = j_1$, $i_1 = j_2$, $i_1 = j_3$, $i_2 = j_1$, $i_2 = j_2$, $i_2 = j_3$, $i_3 = j_1$, $i_3 = j_2$, $i_3 = j_3$, where *i* and *j* denote firm *i* and firm *j*, and the subscript denotes the rank of the top 3 institutional investors for that firm.

[10] Details about the misclassification of institutional investor's type can be found here: https://wrds-www.wharton.upenn.edu/pages/support/applications /institutional-ownership-research/introduction-thomson-reuters-13f-tr-13f-database-and-its-classification-institutional-investors/

[11] Professor Brian Bushee and his assistants corrected for the misclassification by hand-collecting information about each institutional investor's type. Details about his dataset can be found here: https://accounting-faculty.wharton.upenn.edu/bushee/

[12] The omitted group comprises firm-pairs that have top institutional investors of different types.

4. RESEARCH RESULTS AND DISCUSSION

4.1. Descriptive statistics

I begin the sample selection process by selecting all US publicly listed firms with necessary data on Compustat, CRSP, and Thomson Reuters. First, I require that each firm must have non-missing quarterly earnings and stock returns data from Compustat and CRSP to compute the comparability measures and relevant control variables. Second, I require that each firm must have non-missing institutional holdings data from the Thomson Reuters 13F database to identify the firm's TII. Following prior studies, I exclude financial firms (2-digit SIC code 60-69) from the sample due to the high level of industry regulation[13]. Since accounting comparability is an intra-industry measure between two firms, the unit of observation is a firm-pair-year, with firm-pairs formed by exhaustively matching firms within the same industry year (industry defined based on 2-digit SIC codes). Based on my data requirements, the primary sample comprises 1,130,793 firm-pair-year observations across 44 industries, spanning the 1991–2017 period[14].

Table 1, Panel A reports the descriptive statistics for all relevant variables used in the primary analyses. The mean (median) values for the two comparability measures, *ACCTCOMP* and *ACCTCOMPAT* are -3.083 (-1.932) and -3.349 (-2.245), respectively[15]. Following De Franco et al. (2011),

I interpret the comparability measures as the mean (median) error in quarterly earnings between firm i's and firm j's accounting functions. Based on the summary statistics, this error is approximately 3.083 (or 3.349 for *ACCTCOMPAT*) percent of market value. The mean value for *SAME_TOP_INST* is 0.084, which indicates that 8.4% of firm-pairs in the sample share the same TII. The mean value for *SAME_TOP3* is 0.533, which indicates that approximately 53.3% of firm-pairs share at least one similar institution among their top three institutional investors[16].

The subsample to test *H2* contains 682,380 firm-pairs. This subsample only includes observations with non-missing data for the TII types. The mean values for *MONITORING* and *NON_MONITORING* are 0.657 and 0.641, respectively. This indicates that about 65.7% of firm-pairs have monitoring institutions as their TIIs, while only 6.41% of firm-pairs have non-monitoring institutions as their TIIs[17]. The distributions of the control variables are consistent with those reported in Francis et al. (2014).

Table 1, Panel B and Panel C report the means statistics for the subsamples of firm-pairs that have similar and different TIIs. I find that that on average, firm-pairs that share a TII (*SAME_TOP_INST* = 1 or *SAME_TOP3* = 1) exhibit greater accounting comparability than firm-pairs that have different TIIs (where *SAME_TOP_INST* = 0 or *SAME_TOP3* = 0), and the t-test shows that the differences in means of the *ACCTCOMP* variable are statistically significant.

---

[13] Following De Franco et al. (2011) and Francis et al. (2014), I only include firms that have fiscal year end on March, June, September, and December. I also exclude firms with names containing "HOLDING", "HOLDINGS", "ADR", "partnership", "LP", "LLP."

[14] The sample starts in 1991 because cash flows information became available in 1987 on Compustat, and since cash flows and cash flows volatility are aggregated over a 4-year period, the first year a firm-pair can appear in the sample is 1991. The sample ends in 2017 because the analysis starts in 2018, so 2017 is the last year with sufficient data to compute necessary variables.

[15] The slightly lower number of observations for the *ACCTCOMPAT* measure is due to truncation of the parameters during the computation of the comparability measure. For the *ACCTCOMP* measure, the sample of parameters is truncated across two parameters $\hat{\alpha}$ and $\hat{\beta}_1$, while for the *ACCTCOMPAT* measure, the sample is truncated across four parameters $\hat{\alpha}, \hat{\beta}_1, \hat{\beta}_2$ and $\hat{\beta}_3$ which results in a slight reduction of observations.

[16] The number of observations decreases to 869,185 because I require that firm-pairs must have non-missing values for the second and third largest institutional investors.

[17] The total number of observations decreases due to the availability of institutional investor's types.

Table 1. Descriptive information (**Panel A:** Descriptive statistics for the primary sample)

Variables	N	Mean	SD	Q1	Median	Q3
ACCTCOMP	1,130,793	-3.083	3.310	-4.194	-1.932	-0.826
ACCTCOMPAT	1,114,186	-3.349	3.373	-4.517	-2.245	-1.054
SAME_TOP_INST	1,130,793	0.084	0.278	0.000	0.000	0.000
SAME_TOP3	867,411	0.533	0.499	0.000	1.000	1.000
MONITORING	682,380	0.657	0.475	0.000	1.000	1.000
NON_MONITORING	682,380	0.064	0.245	0.000	0.000	0.000
BNK	682,380	0.047	0.213	0.000	0.000	0.000
INS	682,380	0.002	0.043	0.000	0.000	0.000
INV	682,380	0.062	0.241	0.000	0.000	0.000
IIA	682,380	0.325	0.468	0.000	0.000	1.000
CPS	682,380	0.000	0.001	0.000	0.000	0.000
PPS	682,380	0.000	0.003	0.000	0.000	0.000
UFE	682,380	0.000	0.003	0.000	0.000	0.000
SAME_AUD	644,648	0.125	0.331	0.000	0.000	0.000
IOR_DIFF	1,130,793	0.289	0.218	0.110	0.244	0.430
IOR_MIN	1,130,793	0.385	0.249	0.171	0.355	0.576
SIZE_DIFF	1,130,793	2.082	1.587	0.812	1.737	3.014
SIZE_MIN	1,130,793	4.920	1.609	3.751	4.741	5.915
LEV_DIFF	1,130,793	0.209	0.157	0.080	0.176	0.309
LEV_MIN	1,130,793	0.332	0.168	0.197	0.306	0.451
BTM_DIFF	1,130,793	0.367	0.390	0.111	0.250	0.481
BTM_MIN	1,130,793	0.357	0.212	0.202	0.317	0.464
ROA_DIFF	1,130,793	0.154	0.195	0.033	0.082	0.193
ROA_MIN	1,130,793	-0.100	0.217	-0.152	-0.014	0.031
LOSS_DIFF	1,130,793	0.328	0.297	0.063	0.250	0.500
LOSS_MIN	1,130,793	0.137	0.217	0.000	0.063	0.188
ACCR_DIFF	1,130,793	0.078	0.105	0.022	0.051	0.098
ACCR_MIN	1,130,793	-0.109	0.100	-0.136	-0.086	-0.055
SALES_VOL_DIFF	1,130,793	131.360	316.229	6.654	25.930	98.432
SALES_VOL_MIN	1,130,793	18.364	41.849	1.822	5.085	15.421
SALES_GROWTH_DIFF	1,130,793	0.311	0.798	0.061	0.142	0.295
SALES_GROWTH_MIN	1,130,793	0.045	0.132	-0.024	0.038	0.104
SALES_GROWTH_VOL_DIFF	1,130,793	0.555	2.378	0.037	0.092	0.221
SALES_GROWTH_VOL_MIN	1,130,793	0.119	0.103	0.062	0.093	0.141
CFO_DIFF	1,130,793	0.144	0.165	0.037	0.088	0.182
CFO_MIN	1,130,793	-0.010	0.179	-0.040	0.048	0.090
CFO_VOL_DIFF	1,130,793	78.986	184.069	3.927	15.004	58.682
CFO_VOL_MIN	1,130,793	11.713	26.195	1.643	3.752	9.867
CFO_COV	1,130,793	0.101	0.129	0.011	0.050	0.142
RET_COV	1,130,793	0.145	0.159	0.021	0.087	0.221

Notes: This table presents the descriptive statistics for the relevant variables used in the main analyses. The primary sample comprises 1,130,793 firm-pair-year observations. All data are obtained from Compustat, CRSP, Thomson Reuters 13F, and Professor Brian Bushee's websites. All variable definitions are provided in Appendix.

Table 1. Descriptive information (**Panel B:** Descriptive statistics partitioned by *SAME_TOP_INST*)

Variables	(1) SAME_TOP_INST = 1	(2) SAME_TOP_INST = 0	(1)–(2) DIFF
ACCTCOMP	-2.870	-3.103	0.233***
ACCTCOMPAT	-3.074	-3.275	0.201***
IOR_DIFF	0.218	0.296	-0.078***
IOR_MIN	0.401	0.384	0.002***
SIZE_DIFF	1.648	2.122	-0.475***
SIZE_MIN	5.149	4.899	0.251***
LEV_DIFF	0.194	0.211	-0.016***
LEV_MIN	0.349	0.331	0.018***
BTM_DIFF	0.358	0.368	-0.010***
BTM_MIN	0.384	0.355	0.029***
ROA_DIFF	0.139	0.156	-0.017***
ROA_MIN	-0.091	-0.102	0.011***
LOSS_DIFF	0.291	0.332	-0.041***
LOSS_MIN	0.146	0.136	0.010***
ACCR_DIFF	0.076	0.079	-0.003***
ACCR_MIN	-0.105	-0.11	0.004***
SALES_VOL_DIFF	127.717	131.695	-3.978***
SALES_VOL_MIN	26.951	17.575	9.376***
SALES_GROWTH_DIFF	0.304	0.312	-0.008***
SALES_GROWTH_MIN	0.042	0.045	-0.003***
SALES_GROWTH_VOL_DIFF	0.541	0.556	-0.016**
SALES_GROWTH_VOL_MIN	0.127	0.119	0.009***
CFO_DIFF	0.130	0.145	-0.015***
CFO_MIN	-0.003	-0.011	0.008***
CFO_VOL_DIFF	78.897	78.994	-0.097
CFO_VOL_MIN	17.231	11.206	6.025***
CFO_COV	0.106	0.101	0.005***
RET_COV	0.155	0.145	0.010***
N	95,181	1,035,612	

*Notes: This table presents the means and differences in means of the subsample of firm-pairs with the same top institutional investors (SAME_TOP_INST = 1) and the subsample of firm-pairs with different top institutional investors (SAME_TOP_INST = 0). ***, **, and * denote statistical significance at the 1%, 5%, and 10% level. All variable definitions are provided in Appendix.*

Table 1. Descriptive information (**Panel C:** Descriptive statistics partitioned by *SAME_TOP3*)

Variables	(1) SAME_TOP3 = 1	(2) SAME_TOP3 = 0	(1)-(2) DIFF
ACCTCOMP	-2.774	-2.966	0.193***
ACCTCOMPAT	-2.950	-3.113	0.163***
IOR_DIFF	0.245	0.303	-0.058***
IOR_MIN	0.463	0.432	0.030***
SIZE_DIFF	1.846	2.178	-0.332***
SIZE_MIN	5.459	5.149	0.310***
LEV_DIFF	0.202	0.214	-0.012***
LEV_MIN	0.348	0.335	0.013***
BTM_DIFF	0.328	0.359	-0.031***
BTM_MIN	0.357	0.341	0.016***
ROA_DIFF	0.141	0.144	-0.003***
ROA_MIN	-0.085	-0.084	-0.001***
LOSS_DIFF	0.307	0.328	-0.021***
LOSS_MIN	0.131	0.119	0.012***
ACCR_DIFF	0.073	0.073	0.000
ACCR_MIN	-0.106	-0.108	0.002***
SALES_VOL_DIFF	155.606	139.973	15.633***
SALES_VOL_MIN	27.3405	16.899	10.506***
SALES_GROWTH_DIFF	0.293	0.286	0.007***
SALES_GROWTH_MIN	0.04	0.045	-0.005***
SALES_GROWTH_VOL_DIFF	0.53	0.488	0.037***
SALES_GROWTH_VOL_MIN	0.116	0.108	0.008***
CFO_DIFF	0.13	0.133	-0.004***
CFO_MIN	0.005	0.008	-0.003***
CFO_VOL_DIFF	97.613	81.311	16.302***
CFO_VOL_MIN	17.659	10.646	7.013***
CFO_COV	0.107	0.103	0.004***
RET_COV	0.156	0.151	0.006***
N	462,470	404,941	

*Notes: This table presents the means and differences in means of the subsample of firm-pairs that share at least one of their top three institutional investors (SAME_TOP3 = 1) and the subsample of firm-pairs that do not share any of their top 3 institutional investors (SAME_TOP3 = 0). ***, **, and * denote statistical significance at the 1%, 5%, and 10% level. All variable definitions are provided in Appendix.*

Table 1, Panel D provides the industry composition of the primary sample. The table indicates that the sample is distributed across 44 different 2-digit industry SIC codes. The top three industries in terms of the number of observations account for more than 50% of the sample, while the top ten industries account for more than 90% of the sample. The "Business services" industry has the highest representation, with 272,191 observations, followed by "Chemical and Allied Products" industry, with 228,437 observations.

Table 1. Descriptive information (**Panel D:** Industry composition of the primary sample)

SIC code	Industry description	N	Percentage
73	Business Services	272,191	24.07
28	Chemicals and Allied Products	228,437	20.20
36	Electronic & Other Electrical Equipment & Components	151,414	13.39
38	Measuring, Photographic, Medical, & Optical Goods, & Clocks	120,631	10.67
35	Industrial and Commercial Machinery and Computer Equipment	114,342	10.11
49	Electric, Gas and Sanitary Services	48,583	4.30
13	Oil and Gas Extraction	47,977	4.24
48	Communications	20,169	1.78
37	Transportation Equipment	19,174	1.70
50	Wholesale Trade — Durable Goods	13,961	1.23
	All others	93,914	8.31
	Total	1,130,793	100.00

Notes: This table presents the top ten industries by the number of observations. Industries are defined based on 2-digit SIC codes, and the unit of observation is firm-pair-year.

Table 2 presents the Pearson correlation coefficients between all of the relevant variables in the primary sample. The correlation matrix indicates a significant positive relationship between the two comparability measures, *ACCTCOMP* and *ACTCOMPAT*, which suggests that they capture the same underlying accounting construct ($\rho = 0.949$). The independent variables are not highly correlated, which alleviates concerns about multicollinearity.

Table 2. Pearson's pairwise correlation among selected variables (Part 1)

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) ACCTCOMP	1.000												
(2) ACCTCOMPAT	0.949*	1.000											
(3) SAME_TOP_INST	0.020*	0.017*	1.000										
(4) SAME_TOP3	0.030*	0.026*	0.282*	1.000									
(5) SAME_AUD	0.028*	0.031*	0.017*	0.026*	1.000								
(6) IOR_DIFF	-0.093*	-0.090*	-0.099*	-0.200*	-0.079*	1.000							
(7) IOR_MIN	0.211*	0.226*	0.019*	0.087*	0.131*	-0.519*	1.000						
(8) SIZE_DIFF	-0.052*	-0.051*	-0.083*	-0.108*	-0.045*	0.334*	-0.194*	1.000					
(9) SIZE_MIN	0.230*	0.250*	0.043*	0.101*	0.159*	-0.287*	0.656*	-0.334*	1.000				
(10) LEV_DIFF	-0.033*	-0.036*	-0.029*	-0.038*	-0.012*	0.050*	-0.030*	0.173*	-0.105*	1.000			
(11) LEV_MIN	0.070*	0.066*	0.030*	0.036*	0.065*	-0.060*	0.147*	0.011*	0.435*	-0.426*	1.000		
(12) BTM_DIFF	-0.231*	-0.223*	-0.008*	-0.043*	-0.047*	0.068*	-0.177*	-0.005*	-0.124*	0.024*	-0.026*	1.000	
(13) BTM_MIN	-0.139*	-0.151*	0.038*	0.040*	-0.030*	-0.044*	-0.090*	-0.114*	0.025*	-0.108*	0.043*	0.034*	1.000
(14) ROA_DIFF	-0.550*	-0.526*	-0.024*	-0.008*	-0.018*	0.117*	-0.219*	0.155*	-0.358*	0.040*	-0.192*	-0.001	-0.233*
(15) ROA_MIN	0.557*	0.556*	0.015*	-0.002*	0.001	-0.099*	0.255*	-0.097*	0.381*	-0.022*	0.163*	-0.016*	0.145*
(16) LOSS_DIFF	-0.477*	-0.459*	-0.039*	-0.036*	-0.027*	0.135*	-0.151*	0.180*	-0.277*	0.072*	-0.147*	0.052*	-0.114*
(17) LOSS_MIN	-0.169*	-0.217*	0.013*	0.029*	0.015*	0.001	-0.174*	-0.127*	-0.255*	0.001	-0.138*	0.059*	0.027*
(18) ACCR_DIFF	-0.280*	-0.281*	-0.007*	0.000	-0.013*	0.035*	-0.133*	0.014*	-0.172*	0.007*	-0.096*	-0.001	-0.092*
(19) ACCR_MIN	0.335*	0.335*	0.011*	0.011*	0.003*	-0.036*	0.069*	0.001	0.106*	0.018*	0.044*	-0.010*	0.074*
(20) SALES_VOL_DIFF	0.066*	0.070*	-0.003*	0.023*	0.034*	-0.033*	0.129*	0.433*	0.240*	0.046*	0.172*	-0.042*	-0.063*
(21) SALES_VOL_MIN	0.141*	0.146*	0.062*	0.113*	0.102*	-0.169*	0.326*	-0.166*	0.639*	-0.111*	0.351*	-0.084*	-0.001
(22) SALES_GROWTH_DIFF	-0.098*	-0.103*	-0.003*	0.005*	0.019*	0.025*	-0.057*	0.017*	-0.103*	0.032*	-0.090*	-0.022*	-0.115*
(23) SALES_GROWTH_MIN	0.155*	0.164*	-0.007*	-0.021*	0.012*	-0.017*	0.048*	-0.069*	0.007*	-0.035*	-0.064*	-0.167*	-0.198*
(24) SALES_GROWTH_VOL_DIFF	-0.097*	-0.110*	-0.002*	0.008*	0.026*	0.028*	-0.057*	0.038*	-0.098*	0.038*	-0.077*	-0.035*	-0.096*
(25) SALES_GROWTH_VOL_MIN	-0.102*	-0.125*	0.023*	0.038*	0.041*	-0.011*	-0.158*	-0.086*	-0.161*	-0.008*	-0.071*	0.002*	0.003*
(26) CFO_DIFF	-0.322*	-0.325*	-0.025*	-0.012*	-0.011*	0.116*	-0.214*	0.157*	-0.347*	0.047*	-0.194*	-0.016*	-0.311*
(27) CFO_MIN	0.355*	0.371*	0.012*	-0.009*	-0.012*	-0.097*	0.275*	-0.111*	0.393*	-0.044*	0.164*	-0.001	0.184*
(28) CFO_VOL_DIFF	0.066*	0.069*	-0.000	0.041*	0.047*	-0.031*	0.138*	0.472*	0.253*	0.055*	0.178*	-0.052*	-0.091*
(29) CFO_VOL_MIN	0.127*	0.131*	0.064*	0.120*	0.108*	-0.168*	0.328*	-0.166*	0.647*	-0.109*	0.351*	-0.086*	-0.009*
(30) CFO_COV	0.040*	0.043*	0.010*	0.014*	0.034*	-0.040*	0.094*	-0.021*	0.133*	-0.036*	0.087*	-0.025*	0.009*
(31) RET_COV	0.009*	0.013*	0.018*	0.017*	0.050*	-0.089*	0.167*	-0.086*	0.221*	-0.062*	0.086*	-0.046*	0.084*

Table 2. Pearson's pairwise correlation among selected variables (Part 2)

Variables	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
(14) ROA_DIFF	1.000																
(15) ROA_MIN	-0.910*	1.000															
(16) LOSS_DIFF	0.583*	-0.493*	1.000														
(17) LOSS_MIN	0.161*	-0.454*	-0.142*	1.000													
(18) ACCR_DIFF	0.394*	-0.410*	0.152*	0.177*	1.000												
(19) ACCR_MIN	-0.420*	0.482*	-0.170*	-0.258*	-0.774*	1.000											
(20) SALES_VOL_DIFF	-0.058*	0.095*	-0.038*	-0.139*	-0.056*	0.048*	1.000										
(21) SALES_VOL_MIN	-0.182*	0.194*	-0.188*	-0.142*	-0.097*	0.081*	0.248*	1.000									
(22) SALES_GROWTH_DIFF	0.230*	-0.269*	0.133*	0.173*	0.138*	-0.120*	-0.018*	-0.051*	1.000								
(23) SALES_GROWTH_MIN	-0.032*	0.049*	-0.073*	-0.036*	0.087*	-0.065*	-0.026*	-0.009*	0.057*	1.000							
(24) SALES_GROWTH_VOL_DIFF	0.226*	-0.267*	0.136*	0.174*	0.068*	-0.061*	-0.011*	-0.048*	0.537*	0.049*	1.000						
(25) SALES_GROWTH_VOL_MIN	0.145*	-0.306*	-0.024*	0.478*	0.130*	-0.109*	-0.035*	-0.035*	0.227*	0.101*	0.239*	1.000					
(26) CFO_DIFF	0.764*	-0.678*	0.518*	0.119*	0.261*	-0.208*	-0.041*	-0.172*	0.248*	0.046*	0.259*	0.155*	1.000				
(27) CFO_MIN	-0.724*	0.817*	-0.470*	-0.423*	-0.262*	0.152*	0.084*	0.189*	-0.295*	0.018*	-0.321*	-0.347*	-0.833*	1.000			
(28) CFO_VOL_DIFF	-0.045*	0.086*	-0.024*	-0.138*	-0.057*	0.054*	0.798*	0.259*	-0.017*	-0.061*	-0.002*	-0.058*	-0.028*	0.070*	1.000		
(29) CFO_VOL_MIN	-0.158*	0.167*	-0.164*	-0.125*	-0.089*	0.065*	0.247*	0.879*	-0.043*	-0.035*	-0.032*	-0.032*	-0.151*	0.165*	0.258*	1.000	
(30) CFO_COV	-0.055*	0.043*	-0.078*	-0.008*	-0.037*	0.016*	0.042*	0.115*	-0.024*	0.001	-0.021*	0.001	-0.060*	0.049*	0.049*	0.125*	1.000
(31) RET_COV	-0.065*	0.033*	-0.088*	0.031*	-0.024*	-0.041*	0.044*	0.168*	-0.038*	-0.007*	-0.037*	0.019*	-0.089*	0.079*	0.033*	0.173*	0.119*

Notes: This table presents the Pearson's pair-wise correlation between the dependent variables, ACCTCOMP and ACCTCOMPAT, and the relevant independent variables. * denotes statistically significant correlation at the 1% level. All variable definitions are provided in Appendix.

4.2. Tests of the main hypotheses

Table 3 presents the regression results for *H1,* which examines the relation between the sharing of TIIs and accounting comparability. In Panel A, column (1) presents the result with *SAME_TOP_INST* as the only independent variable, column (2) presents the result with a more robust specification of control variables, and column (3) presents the result with the additional control for whether a firm-pair share the same audit firm (For most of the analyses, I provide the results with the control for audit firm (*SAME_AUD*) on a separate column, because missing data on audit firms significantly reduces the number of observations, which may affect the power of the test). In all columns, I find significantly positive coefficients on *SAME_TOP_INST* (column (1): $\beta_1 = 0.08$, $t = 5.19$; column (2): $\beta_1 = 0.07$, $t = 6.58$; column (3): $\beta_1 = 0.117$, $t = 8.63$), which indicates that firm-pairs that share TIIs exhibit greater accounting comparability than firm-pairs that have different TIIs.

Panel B presents the results with the alternative variable *SAME_TOP3,* which is an indicator variable

for firm-pairs that share at least one of their top three institutional investors. In all columns, I also find significantly positive coefficients on *SAME_TOP3* (column (1): $\beta_1 = 0.023$, $t = 2.04$; column (2): $\beta_1 = 0.080$, $t = 10.27$; column (3): $\beta_1 = 0.086$, $t = 8.21$). The result suggests that firm-pairs that share at least one similar institutional investor among their top three investors also exhibit greater accounting comparability than firm-pairs that do not have any similar institutional investors among their top three.

The findings in Panels A and B support *H1,* which predicts a positive relationship between the similarity in firm-pair's TII and accounting comparability. This result corroborates the role of TIIs in shaping firms' financial reporting processes. As each TII exerts unique influence on the firm's financial reporting, they also make the accounting information more comparable. Collectively, the findings suggest that TIIs are not only users of accounting information, but also influence the production of such information.

Table 3. The relation between the sharing of top institutional investors and accounting comparability (**Panel A:** Regression with *SAME_TOP_INST* as the measure for the sharing of top institutional investors)

Variables	ACCTCOMP (1)		ACCTCOMP (2)		ACCTCOMP (3)	
	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat
SAME_TOP_INST (β_1)	0.080***	5.19	0.070***	6.58	0.117***	8.63
SAME_AUD					-0.032**	-2.02
IOR_DIFF			0.258***	9.27	0.353***	9.77
IOR_MIN			0.925***	24.50	1.028***	20.43
SIZE_DIFF			0.008*	1.89	0.002	0.41
SIZE_MIN			-0.150***	-19.61	-0.169***	-16.12
LEV_DIFF			-1.465***	-42.98	-1.324***	-29.38
LEV_MIN			-2.405***	-57.21	-2.390***	-43.25
BTM_DIFF			-1.541***	-73.92	-1.875***	-62.13
BTM_MIN			-3.560***	-120.24	-3.846***	-91.41
ROA_DIFF			-3.331***	-22.40	-3.380***	-18.32
ROA_MIN			7.546***	34.02	8.229***	29.00
LOSS_DIFF			-3.348***	-116.91	-3.068***	-86.53
LOSS_MIN			-1.569***	-37.17	-1.323***	-25.35
ACCR_DIFF			-4.268***	-29.76	-4.590***	-23.27
ACCR_MIN			-4.086***	-19.98	-4.978***	-18.73
SALES_VOL_DIFF			0.000***	3.45	0.000***	5.52
SALES_VOL_MIN			-0.000**	-2.09	0.000	1.28
SALES_GROWTH_DIFF			0.046***	5.79	0.061***	7.01
SALES_GROWTH_MIN			0.626***	14.41	0.634***	10.87
SALES_GROWTH_VOL_DIFF			-0.022***	-5.88	-0.029***	-9.93
SALES_GROWTH_VOL_MIN			-0.974***	-18.40	-0.995***	-15.24
CFO_DIFF			-2.348***	-21.91	-2.321***	-16.85
CFO_MIN			-8.086***	-40.24	-8.457***	-33.05
CFO_VOL_DIFF			-0.000	-0.48	-0.000**	-2.30
CFO_VOL_MIN			0.002***	6.56	0.002***	3.88
CFO_COV			-0.031	-1.21	-0.041	-1.23
RET_COV			0.003	0.11	-0.087***	-2.62
Observations	1,130,793		1,130,793		611,648	
Adjusted R-squared	0.077		0.527		0.529	
Industry FE	YES		YES		YES	
Year FE	YES		YES		YES	
Clustered SE	Firm-pair		Firm-pair		Firm-pair	

Notes: This table presents the results from estimating regression equation (10) with ACCTCOMP as the measure of accounting comparability. The variable of interest is SAME_TOP_INST, which is an indicator variable equals 1 when a pair of firms share a top institutional investor (and 0 otherwise). ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels (two-tailed). All variable definitions are provided in Appendix.

Table 3. The relation between the sharing of top institutional investors and accounting comparability
(**Panel B:** Regression with *SAME_TOP3* as the variable of interest)

Variables	ACCTCOMP (1)		ACCTCOMP (2)		ACCTCOMP (3)	
	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat
SAME_TOP3 (β_1)	0.023**	2.04	0.080***	10.27	0.086***	8.21
SAME_AUD					-0.023	-1.43
IOR_DIFF			0.329***	10.31	0.409***	10.30
IOR_MIN			0.811***	19.27	0.922***	16.94
SIZE_DIFF			0.024***	5.06	0.015**	2.55
SIZE_MIN			-0.132***	-15.74	-0.138***	-12.56
LEV_DIFF			-1.414***	-38.67	-1.332***	-29.01
LEV_MIN			-2.276***	-50.80	-2.327***	-41.08
BTM_DIFF			-1.634***	-71.52	-1.801***	-59.13
BTM_MIN			-3.489***	-111.18	-3.679***	-88.08
ROA_DIFF			-3.175***	-19.61	-3.075***	-15.36
ROA_MIN			8.664***	35.74	8.881***	27.70
LOSS_DIFF			-3.117***	-101.07	-2.939***	-78.77
LOSS_MIN			-1.391***	-30.08	-1.251***	-22.80
ACCR_DIFF			-4.407***	-34.18	-5.183***	-24.35
ACCR_MIN			-4.839***	-25.90	-5.907***	-20.65
SALES_VOL_DIFF			0.000***	2.89	0.000***	4.50
SALES_VOL_MIN			-0.000	-1.61	0.000	1.43
SALES_GROWTH_DIFF			0.038***	4.99	0.059***	6.76
SALES_GROWTH_MIN			0.816***	17.48	0.871***	15.26
SALES_GROWTH_VOL_DIFF			-0.014***	-6.76	-0.022***	-9.63
SALES_GROWTH_VOL_MIN			-0.883***	-15.85	-0.948***	-14.06
CFO_DIFF			-2.447***	-20.69	-2.629***	-17.39
CFO_MIN			-9.144***	-45.03	-9.325***	-33.13
CFO_VOL_DIFF			-0.000*	-1.85	-0.000**	-2.36
CFO_VOL_MIN			0.002***	6.54	0.002***	3.54
CFO_COV			0.016	0.61	0.023	0.67
RET_COV			-0.001	-0.03	-0.098***	-2.89
Observations	867,411		867,411		529,459	
Adjusted R-squared	0.083		0.536		0.526	
Industry FE	YES		YES		YES	
Year FE	YES		YES		YES	
Clustered SE	Firm-pair		Firm-pair		Firm-pair	

*Notes: This table presents the results from estimating regression equation (10) with ACCTCOMP as the measure of accounting comparability. The variable of interest is SAME_TOP3, which is an indicator variable equals 1 for firm-pairs that share at least one of their top three largest institutional investors (and 0 otherwise). ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels (two-tailed). All variable definitions are provided in Appendix.*

Table 4 reports the regression results for *H2,* which examines the relation between TII type and accounting comparability. This analysis is performed on the subsample of firm-pairs with non-missing data on TIIs' type. The primary variables of interest are *MONITORING* and *NON_MONITORING*, which are indicator variables for firm-pairs with monitoring and non-monitoring TIIs, respectively. The comparison group (or omitted group) comprises firm-pairs whose TIIs are of different types (e.g., firm-pairs in which one firm has a monitoring TII and one firm has a non-monitoring TII).

In Panel A, column (1) presents the results with *MONITORING* and *NON_MONITORING* as the only independent variables, while column (2) presents the results with a more robust set of control variables. In column (1), I find a significantly positive

coefficient on *MONITORING* (β_1 = 0.298, t = 19.47) and a significantly negative coefficient on *NON_MONITORING* (β_2 = -0.173, t = -9.55). In column (2), I also find a significantly positive coefficient on *MONITORING* (β_1 = 0.246, t = 13.63), and a non-significant coefficient on *NON_MONITORING* (β_2 = 0.019, t = 0.59). The results suggest that firm-pairs that have monitoring TIIs exhibit greater accounting comparability than firm-pairs that have non-monitoring TIIs. The t-test confirms that the difference between β_1 and β_2 is positive and statistically significant (column (1): t = 21.14; column (2): t = 6.44). Overall, the results support *H2,* which predicts that monitoring institutions tend to engage more actively in the firm's financial reporting decisions, which translates into greater accounting comparability.

Table 4. The relationship between the similarity in top institutional investors' types and accounting comparability (**Panel A:** Pooled regression with *MONITORING* and *NON_MONITORING* as the variables of interest)

Variables	ACCTCOMP (1)		ACCTCOMP (2)	
	Coefficient	t-stat	Coefficient	t-stat
MONITORING (β_1)	0.298***	19.47	0.246***	13.63
NON_MONITORING (β_2)	-0.173***	-9.55	0.019	0.59
SAME_AUD			-0.057***	-2.71
IOR_DIFF			0.315***	6.91
IOR_MIN			1.165***	18.11
SIZE_DIFF			-0.009	-1.11
SIZE_MIN			-0.215***	-15.54
LEV_DIFF			-1.377***	-24.12
LEV_MIN			-2.587***	-36.75
BTM_DIFF			-1.779***	-49.83
BTM_MIN			-3.715***	-71.83
ROA_DIFF			-2.934***	-11.88
ROA_MIN			10.140***	23.82
LOSS_DIFF			-2.856***	-67.22
LOSS_MIN			-1.175***	-17.41
ACCR_DIFF			-5.572***	-20.05
ACCR_MIN			-6.331***	-15.89
SALES_VOL_DIFF			0.000***	3.82
SALES_VOL_MIN			0.000	0.10
SALES_GROWTH_DIFF			0.160***	9.84
SALES_GROWTH_MIN			0.617***	8.33
SALES_GROWTH_VOL_DIFF			-0.042***	-9.51
SALES_GROWTH_VOL_MIN			-1.048***	-12.31
CFO_DIFF			-3.131***	-16.72
CFO_MIN			-9.911***	-26.56
CFO_VOL_DIFF			0.000	0.54
CFO_VOL_MIN			0.003***	4.15
CFO_COV			-0.069	-1.57
RET_COV			-0.180***	-4.15
Observations	682,380		344,374	
Adjusted R-squared	0.067		0.512	
Industry FE	YES		YES	
Year FE	YES		YES	
Clustered SE	Firm-pair		Firm-pair	

Test of differences between *MONITORING* ($\beta1$) and *NON_MONITORING* ($\beta2$)

Independent variables	(1)		(2)	
	Differences	t-stat	Differences	t-stat
β_1–β_2	0.471***	21.14	0.226***	6.44

Notes: This table presents the results from estimating regression equation (11) with ACCTCOMP as the dependent variable. The independent variables of interest are: MONITORING, which is the indicator variable equals 1 for firm-pairs with monitoring top institutional investors, and NON_MONITORING, which is the indicator variable equals 1 for firm-pairs with non-monitoring top institutional investors. The table also reports the test of differences between MONITORING (β_1) and NON_MONITORING (β_2). ***, **, and * denote statistical significance at the 1%, 5%, and 10% level (two-tailed). All variable definitions are provided in Appendix.

To provide further insights into the relation between each type of institution on accounting comparability, I partition TIIs into subgroups based on their specific type. I divide the *MONITORING* group into three subgroups of firm-pairs where: 1) both TIIs are investment firms (*INV*), 2) both TIIs are independent investment advisors (*IIA*), and 3) one TII is an investment firm and one TII is an independent investment advisor (*INV_IIA*)[18]. I also divide the *NON_MONITORING* group into three subgroups of firm-pairs where: 1) both TIIs are banks (*BNK*), 2) both TIIs are insurance companies (*INS*), and 3) one TII is a bank and one TII is an insurance company (*BNK_INS*). The comparison group still comprises firm-pairs whose TIIs are of different types. I then estimate the following regression equation:

$$ACCTCOMP_{i,j,t} = \alpha + \beta_1 INV_{i,j,t} + \beta_2 IIA_{i,j,t} + \beta_3 INV\_IIA_{i,j,t} + \beta_4 BNK_{i,j,t} + \beta_5 INS_{i,j,t} + \beta_6 BNK\_INS_{i,j,t} + \sum CONTROLS + IndFE + YearFE + \varepsilon_{i,j,t} \qquad (12)$$

Panel B of Table 4 reports the regression results. Among monitoring institutions, I find significant positive coefficients on *INV*, *IIA*, and *INV_IIA* (β_1 = 0.372, t = 14.11; β_2 = 0.217, t = 10.88; β_3 = 0.260, t = 13.31). Among non-monitoring institutions, I find positive coefficient on *BNK* (β_4 = 0.054), and negative coefficients *INS* and *BNK_INS* (t = -2.08; β_6 = -0.133, t = -1.58). This result suggests that the accounting comparability of firm-pairs with banks as TII are not statistically different from that of the comparison group. However, firm-pairs whose TIIs consist of insurance companies exhibit lower comparability than the comparison group. While the results are exploratory, one possible explanation is that insurance companies

---

[18] For example, *INV* is an indicator variable equals 1 if firm-pair's TIIs are both investment firms, while *INV_IIA* is an indicator variable equals 1 if firm-pair's TIIs are an investment firm and an independent investment advisor. For this analysis, I drop firm-pairs whose TIIs are corporate pension funds (*CPS*), public pension funds (*PPS*) or university and foundation endowments (*UFE*), due to the small count of observations. For example, there is only 1 observation for firm-pair whose TIIs are both *CPS*, 8 observations for firm-pairs whose TIIs are both *PPS*, and 5 observations for firm-pairs whose TIIs are both *UFE*.

could be most sensitive to pressure from the firm's management and will be least likely to monitor firms. Overall, the results shed light on the relation

between each specific type of institutional investors and accounting comparability, and further support *H2*.

Table 4. The relationship between the similarity in top institutional investors' types and accounting comparability (**Panel B:** Pooled regression with the sub-groups of institutional investors)

Variables	ACCTCOMP	
	Coefficient	t-stat
INV (β₁)	0.372***	14.11
IIA (β₂)	0.217***	10.88
INV_IIA (β₃)	0.260***	13.31
BNK (β₄)	0.054	1.53
INS (β₅)	-0.875**	-2.08
BNK_INS (β₆)	-0.133	-1.58
SAME_AUD	-0.057***	-2.69
IOR_DIFF	0.315***	6.89
IOR_MIN	1.155***	17.91
SIZE_DIFF	-0.014*	-1.69
SIZE_MIN	-0.228***	-16.11
LEV_DIFF	-1.377***	-23.95
LEV_MIN	-2.553***	-36.08
BTM_DIFF	-1.767***	-48.91
BTM_MIN	-3.687***	-70.52
ROA_DIFF	-2.972***	-11.90
ROA_MIN	10.139***	23.63
LOSS_DIFF	-2.843***	-66.46
LOSS_MIN	-1.181***	-17.40
ACCR_DIFF	-5.499***	-19.67
ACCR_MIN	-6.377***	-15.93
SALES_VOL_DIFF	0.000***	3.73
SALES_VOL_MIN	0.000	0.10
SALES_GROWTH_DIFF	0.158***	9.62
SALES_GROWTH_MIN	0.629***	8.44
SALES_GROWTH_VOL_DIFF	-0.045***	-9.94
SALES_GROWTH_VOL_MIN	-1.054***	-12.26
CFO_DIFF	-3.166***	-16.77
CFO_MIN	-9.913***	-26.39
CFO_VOL_DIFF	0.000	0.78
CFO_VOL_MIN	0.003***	4.13
CFO_COV	-0.073	-1.64
RET_COV	-0.182***	-4.17
Observations	339,922	
Adjusted R-squared	0.511	
Industry FE	YES	
Year FE	YES	
Clustered SE	Firm-pair	

Notes: This table presents the results from estimating regression equation (12). The comparison group comprises firm-pairs whose top institutional investors have diverging monitoring incentives. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level (two-tailed). All variable definitions are provided in Appendix.

4.3. Additional analyses

H2 only considers whether the TIIs are of the same type, but not whether the TII are also the same. To provide further insight on the relation between the institutional investor type and comparability, I estimate the following regression equation separately for subsamples of firm-pairs with the same (*SAME_TOP_INST* = 1) and different (*SAME_TOP_INST* = 0) TII:

$$ACCTCOMP_{i,j,t} = \alpha + \beta_1 MONITORING_{i,j,t} + \sum CONTROLS + IndFE + YearFE + \varepsilon_{i,j,t}$$

Column (1) of Table 5 presents the regression result for the subsample of firm-pairs that share the same TII (*SAME_TOP_INST* = 1)[19]. The coefficient on *MONITORING* is not statistically significant, which suggests that when firm-pairs already share

a TII, monitoring institution's influence on accounting comparability is not reliably different from that of non-monitoring institutions.

Columns (2) and (3) of Table 5 presents the regression results for the subsample of firm-pairs that have different TTIs (*SAME_TOP_INST* = 0). Column (2) presents the results for the subsample of firm-pairs whose TIIs are either both monitoring or non-monitoring institutions, and column (3) presents the results for the entire subsample of firm-pairs that have different TIIs. The coefficient on *MONITORING* is positive and statistically significant at the 1 percent level, which suggests that among the subsample with different TIIs, firm-pairs with monitoring institutions exhibit greater accounting comparability than firm-pairs with non-monitoring institutions. This finding lends further support to *H2*.

For completeness, I also estimate the following regression equation for the entire subsample of firm-pairs that have different TIIs[20]:

---

[19] This subsample comprises only two groups: firm-pairs that share the same institutional investor that is also a monitoring institution (*MONITORING* = 1), and firm-pairs that share the same institutional investor that is also a non-monitoring institution (comparison group, *MONITORING* = 0). The *NON_MONITORING* variable is omitted as the comparison group.

[20] This subsample comprises three groups: firm-pairs that have different TIIs that are both monitoring institution, firm-pairs that have different TIIs that are both non-monitoring institutions, and firm-pairs that have different TIIs that are of different types (the comparison group).

$$ACCTCOMP_{i,j,t} = \alpha + \beta_1 MONITORING_{i,j,t} + \beta_2 NON\_MONITORING_{i,j,t} + \sum CONTROLS + IndFE + YearFE + \varepsilon_{i,j,t}$$

Column (3) of Table 5 presents the results. The coefficient on *MONITORING* is positive and statistically significant, while the coefficient on

NON_MONITORING, is not statistically different from zero. Collectively, these results confirm that the incremental effects of monitoring institutions on accounting comparability are limited to firm-pairs that have different TIIs.

Table 5. The relationship of the top institutional investors' types and accounting comparability conditional on the similarity in firm-pairs' top institutional investors

| Variables | SAME_TOP_INST = 1 | | SAME_TOP_INST = 0 | | | |
| | ACCTCOMP (1) | | ACCTCOMP (2) | | ACCTCOMP (3) | |
	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat
MONITORING (β_1)	0.072	1.17	0.372***	7.03	0.229***	12.62
NON_MONITORING (β_2)					-0.199***	-4.01
SAME_AUD	-0.076	-1.58	-0.082***	-3.43	-0.056**	-2.53
IOR_DIFF	0.165	1.53	0.406***	7.57	0.369***	7.65
IOR_MIN	0.723***	5.77	1.324***	17.59	1.244***	18.26
SIZE_DIFF	-0.012	-0.63	-0.004	-0.45	-0.007	-0.88
SIZE_MIN	-0.107***	-4.08	-0.237***	-14.92	-0.225***	-15.36
LEV_DIFF	-1.607***	-12.94	-1.273***	-20.66	-1.355***	-22.96
LEV_MIN	-2.781***	-18.31	-2.556***	-32.87	-2.576***	-35.20
BTM_DIFF	-1.581***	-17.50	-1.795***	-48.61	-1.802***	-50.88
BTM_MIN	-3.534***	-30.92	-3.639***	-66.53	-3.749***	-69.31
ROA_DIFF	-2.192***	-3.36	-2.499***	-9.37	-3.008***	-11.91
ROA_MIN	11.202***	11.45	11.939***	26.47	10.033***	23.16
LOSS_DIFF	-2.905***	-29.89	-2.748***	-59.51	-2.849***	-64.94
LOSS_MIN	-1.181***	-6.69	-1.096***	-15.07	-1.186***	-17.15
ACCR_DIFF	-5.467***	-10.58	-6.673***	-21.94	-5.630***	-19.73
ACCR_MIN	-7.392***	-9.36	-8.156***	-19.63	-6.288***	-15.48
SALES_VOL_DIFF	0.000***	2.77	0.000**	2.56	0.000***	3.50
SALES_VOL_MIN	-0.000	-0.01	-0.000	-1.27	-0.000	-0.20
SALES_GROWTH_DIFF	0.096***	4.35	0.149***	7.99	0.168***	9.63
SALES_GROWTH_MIN	0.760***	5.00	0.592***	7.38	0.600***	7.74
SALES_GROWTH_VOL_DIFF	-0.035***	-4.22	-0.031***	-7.37	-0.043***	-9.11
SALES_GROWTH_VOL_MIN	-1.124***	-5.43	-0.902***	-9.26	-1.042***	-11.57
CFO_DIFF	-3.594***	-7.94	-3.806***	-18.43	-3.110***	-16.25
CFO_MIN	-11.236***	-14.35	-11.645***	-29.80	-9.789***	-25.54
CFO_VOL_DIFF	-0.000	-0.44	0.000	1.48	0.000	0.54
CFO_VOL_MIN	0.002***	2.62	0.004***	6.05	0.003***	3.78
CFO_COV	-0.062	-0.60	-0.035	-0.68	-0.075	-1.59
RET_COV	0.015	0.17	-0.238***	-4.92	-0.202***	-4.39
Observations	35,254		248,845		309,120	
Adjusted R-squared	0.531		0.524		0.511	
Industry FE	YES		YES		YES	
Year FE	YES		YES		YES	
Clustered SE	Firm-pair		Firm-pair		Firm-pair	

*Notes: This table presents the results from estimating regression equation (11) separately for the subsample of firm-pairs that share the top institutional investor (SAME_TOP_INST = 1) and the subsample of firm-pairs that have different top institutional investors (SAME_TOP_INST = 0). ***, **, and * denote statistical significance at the 1%, 5%, and 10% level (two-tailed). All variable definitions are provided in Appendix.*

To assess the robustness of the overall findings, I perform matched-pairs difference-in-differences analyses to examine how a change in TIIs influences accounting comparability. My first test investigates how a change to the same institutional investor influences accounting comparability. In this analysis, the treatment group comprises firm-pairs that experience a change from different to similar TIIs, and the control group comprises firm-pairs whose TIIs remain different[21]. I limit the testing window to 1 year before and 1 year after the change. Then, I use propensity score matching (PSM) to match (nearest neighbor matching without replacement) treatment firm-pairs to control firm-pairs using the baseline firm-pair characteristics before the change. Specifically, I obtain the propensity score for each firm-pair by estimating the following model:

$$Probit(TREAT_{i,j,t}) = \alpha + \beta_1 SIZE\_DIFF_{i,j,t} + \beta_2 SIZE\_MIN_{i,j,t} + \beta_3 BTM\_DIFF_{i,j,t} + \beta_4 BTM\_MIN_{i,j,t} + \beta_5 LEV\_DIFF_{i,j,t} + \beta_6 LEV\_MIN_{i,j,t} + \beta_7 ROA\_DIFF_{i,j,t} + \beta_8 ROA\_MIN_{i,j,t} + \beta_9 LOSS\_DIFF_{i,j,t} + \beta_{10} LOSS\_MIN_{i,j,t} + \varepsilon_{i,j}$$

TREAT is an indicator variable that equals 1 for firm-pairs in the control group, and 0 for firm-pairs in the control group. I select the independent variables for the above model based on economic intuition. I predict that the firm-pair characteristics such as size (*SIZE*), growth opportunities (*BTM*), leverage (*LEV*), and performance (*ROA, LOSS*) will affect the institutional investors' decision to invest or divest. Then, I match control firm-pairs and treatment firm-pairs using nearest neighbor matching, which results in a sample size of 128,204 observations. Using the propensity-score matched sample, I then estimate the following regression model:

---

[21] For this control group, I also require firm-pair's different top institutional investors to be temporally similar, which means that the pair of different top institutional investors is similar in both the pre and post periods. In addition, I require that treatment and control firm-pair to be in the same year and 2-digit SIC code industry.

$$ACCTCOMP_{i,j,t} = \alpha + \beta_1 TREAT_{i,j} +$$
$$\beta_2 POST_{i,j,t} + \beta_3 TREAT_{i,j} * POST_{i,j,t} + \quad (13)$$
$$\sum CONTROLS + IndFE + YearFE + \varepsilon_{i,j,t}$$

TREAT is an indicator variable that equals 1 for firm-pairs in the treatment group, and 0 otherwise, and *POST* is an indicator variable that equals 1 for the post-switch period, and 0 otherwise. The variable of interest is the difference-in-differences estimator, β_3, on *TREAT * POST*, which compares the accounting comparability between the treatment and control groups following the change to the same TII.

CONTROLS is a vector of control variables, which are similar to those used in the main analyses. Table 6 reports the regression results. The coefficient of interest, β_3, is positive and statistically significant at the 5 percent level ($\beta_3 = 0.025$, $t = 2.16$), which indicates that firm-pairs that have a change to the same TII experience greater accounting comparability than firm-pairs whose TIIs remain different. The result is consistent with *H1*, which suggests that the common TIIs influence firms' financial reporting that improve their accounting comparability.

Table 6. The impact of the change to the same top institutional investors on accounting comparability

Variables	ACCTCOMP	
	Coefficient	t-stat
TREAT	0.035**	2.13
AFTER	-0.016*	-1.92
TREATXAFTER	0.025**	2.16
IOR_DIFF	0.165***	2.61
IOR_MIN	0.765***	10.69
SIZE_DIFF	0.018*	1.88
SIZE_MIN	-0.110***	-7.91
LEV_DIFF	-1.422***	-20.83
LEV_MIN	-2.345***	-28.79
BTM_DIFF	-1.314***	-29.22
BTM_MIN	-3.220***	-52.82
ROA_DIFF	-3.159***	-10.11
ROA_MIN	8.219***	19.24
LOSS_DIFF	-3.121***	-56.01
LOSS_MIN	-1.343***	-14.92
ACCR_DIFF	-4.145***	-17.80
ACCR_MIN	-4.324***	-12.40
SALES_VOL_DIFF	0.000**	2.28
SALES_VOL_MIN	-0.000	-1.05
SALES_GROWTH_DIFF	0.047***	3.22
SALES_GROWTH_MIN	0.846***	9.79
SALES_GROWTH_VOL_DIFF	-0.013**	-2.51
SALES_GROWTH_VOL_MIN	-0.971***	-8.32
CFO_DIFF	-2.597***	-11.43
CFO_MIN	-8.637***	-23.81
CFO_VOL_DIFF	0.000	0.19
CFO_VOL_MIN	0.002***	4.42
CFO_COV	0.045	0.82
RET_COV	0.054	1.02
Observations	128,204	
R-squared	0.536	
Industry FE	YES	
Year FE	YES	
Clustered SE	Firm-pair	

Notes: This table presents the results from estimating regression equation (13) for the propensity-score matched sample. TREAT is an indicator variable equals 1 for firm-pairs that switch to the same top institutional investors, POST is an indicator variable equals 1 for the post-switch period. The comparison group comprises firm-pairs that have different top institutional investors in both the pre- and post-periods. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level (two-tailed). All variable definitions are provided in Appendix.

Next, I investigate the effect on accounting comparability for a firm-pair's change to different TIIs. For this analysis, the treatment group comprises firm-pairs that have the same TII but experience a change to different TIIs, while the control group comprises firm-pairs whose TII remain the same. Treatment and control observations are matched following the same propensity score matching procedures described in the previous analysis. I then estimate the regression equation (13) for this propensity-score matched sample, and report the results in Table 7. The coefficient of the difference-in-differences estimator, β_3, is negative and statistically significant ($\beta_3 = -0.039$, $t = -2.34$), which suggests that firm-pairs exhibit lower comparability when they experience a change to different TIIs. Overall, the result suggests that different TIIs exert different influences on a firm's financial reporting, which leads to lower accounting comparability.

Table 7. The impact of the switch to different top institutional investors on accounting comparability

Variables	ACCTCOMP	
	Coefficient	t-stat
TREAT	-0.035	-1.54
AFTER	-0.004	-0.31
TREATXAFTER	-0.039**	-2.34
IOR_DIFF	0.127	1.35
IOR_MIN	0.637***	5.84
SIZE_DIFF	0.018	1.28
SIZE_MIN	-0.051**	-2.50
LEV_DIFF	-1.900***	-18.46
LEV_MIN	-2.974***	-25.15
BTM_DIFF	-1.320***	-22.06
BTM_MIN	-3.129***	-38.19
ROA_DIFF	-3.011***	-6.49
ROA_MIN	9.177***	14.49
LOSS_DIFF	-3.414***	-43.11
LOSS_MIN	-1.589***	-12.22
ACCR_DIFF	-5.297***	-13.88
ACCR_MIN	-5.186***	-9.46
SALES_VOL_DIFF	0.000	1.32
SALES_VOL_MIN	-0.000	-0.66
SALES_GROWTH_DIFF	0.040*	1.91
SALES_GROWTH_MIN	0.512***	4.40
SALES_GROWTH_VOL_DIFF	-0.013*	-1.93
SALES_GROWTH_VOL_MIN	-1.319***	-8.08
CFO_DIFF	-2.512***	-7.65
CFO_MIN	-10.397***	-19.85
CFO_VOL_DIFF	-0.000	-1.15
CFO_VOL_MIN	0.002**	2.01
CFO_COV	0.099	1.22
RET_COV	-0.131	-1.62
Observations	65,736	
R-squared	0.539	
Industry FE	YES	
Year FE	YES	
Clustered SE	Firm-pair	

Notes: This table presents the results from estimating regression equation (13) for the propensity-score matched sample. TREAT is the indicator variable equals 1 for firm-pairs that switch to different top institutional investors, POST is an indicator variable equals 1 for the post-switch period. The comparison group comprises firm-pairs that have similar top institutional investors in both the pre- and post periods. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level (two-tailed). All variable definitions are provided in Appendix.

4.4. Sensitivity analyses

Table 8 provides the results of supplementary tests of *H1* and *H2*. Panels A and B of Table 8 show that the main results are robust to standard errors clustered by both firm-pair and year. Panels C and D show that the main findings are qualitatively similar when accounting comparability is measured by *ACCTCOMPAT*, which is the alternative measure of accounting comparability adjusted for accounting conservatism.

Table 8. Supplementary analyses for *H1* and *H2* (**Panel A:** Supplementary results for *H1* with standard errors clustered by firm-pair and year)

Variables	ACCTCOMP (1)		ACCTCOMP (2)	
	Coefficient	t-stat	Coefficient	t-stat
SAME_TOP_INST	0.117***	3.18		
SAME_TOP3			0.086***	3.88
SAME_AUD	-0.032	-0.92	-0.023	-0.79
IOR_DIFF	0.353***	4.22	0.409***	4.91
IOR_MIN	1.028***	5.82	0.922***	5.37
SIZE_DIFF	0.002	0.14	0.015	0.90
SIZE_MIN	-0.169***	-4.62	-0.138***	-4.36
LEV_DIFF	-1.324***	-12.71	-1.332***	-11.26
LEV_MIN	-2.390***	-11.72	-2.327***	-11.04
BTM_DIFF	-1.875***	-17.41	-1.801***	-14.10
BTM_MIN	-3.846***	-19.78	-3.679***	-17.96
ROA_DIFF	-3.380***	-4.60	-3.075***	-5.29
ROA_MIN	8.229***	6.25	8.881***	6.68
LOSS_DIFF	-3.068***	-10.92	-2.939***	-9.97
LOSS_MIN	-1.323***	-6.23	-1.251***	-5.40
ACCR_DIFF	-4.590***	-5.27	-5.183***	-6.57
ACCR_MIN	-4.978***	-3.63	-5.907***	-4.80
SALES_VOL_DIFF	0.000***	2.61	0.000**	2.08
SALES_VOL_MIN	0.000	0.64	0.000	0.73
SALES_GROWTH_DIFF	0.061	1.34	0.059	1.14
SALES_GROWTH_MIN	0.634***	3.83	0.871***	5.37
SALES_GROWTH_VOL_DIFF	-0.029**	-2.11	-0.022*	-1.83
SALES_GROWTH_VOL_MIN	-0.995***	-9.51	-0.948***	-8.18
CFO_DIFF	-2.321***	-3.94	-2.629***	-5.87
CFO_MIN	-8.457***	-7.88	-9.325***	-8.22
CFO_VOL_DIFF	-0.000	-1.23	-0.000	-1.32
CFO_VOL_MIN	0.002*	1.73	0.002*	1.76
CFO_COV	-0.041	-0.58	0.023	0.45
RET_COV	-0.087	-1.32	-0.098	-1.47
Observations	611,648		529,459	
Adjusted R-squared	0.529		0.526	
Industry FE	YES		YES	
Year FE	YES		YES	
Clustered SE	Firm-pair & Year		Firm-pair & Year	

Notes: This table presents the results from estimating regression equation (10) with standard errors clustered by firm-pair and year. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level (two-tailed).

Table 8. Supplementary analyses for *H1* and *H2* (**Panel B:** Supplementary results for *H2* with standard errors clustered by firm-pair and year)

Variables	ACCTCOMP	
	Coefficient	t-stat
MONITORING	0.246***	3.18
NON_MONITORING	0.019	0.32
SAME_AUD	-0.057	-1.26
IOR_DIFF	0.315***	3.24
IOR_MIN	1.165***	4.80
SIZE_DIFF	-0.009	-0.41
SIZE_MIN	-0.215***	-4.43
LEV_DIFF	-1.377***	-11.61
LEV_MIN	-2.587***	-11.25
BTM_DIFF	-1.779***	-17.99
BTM_MIN	-3.715***	-21.23
ROA_DIFF	-2.934***	-4.56
ROA_MIN	10.140***	5.72
LOSS_DIFF	-2.856***	-11.69
LOSS_MIN	-1.175***	-5.49
ACCR_DIFF	-5.572***	-6.07
ACCR_MIN	-6.331***	-3.81
SALES_VOL_DIFF	0.000	1.46
SALES_VOL_MIN	0.000	0.05
SALES_GROWTH_DIFF	0.160*	1.82
SALES_GROWTH_MIN	0.617***	2.87
SALES_GROWTH_VOL_DIFF	-0.042**	-2.07
SALES_GROWTH_VOL_MIN	-1.048***	-6.42
CFO_DIFF	-3.131***	-5.71
CFO_MIN	-9.911***	-7.43
CFO_VOL_DIFF	0.000	0.39
CFO_VOL_MIN	0.003**	2.38
CFO_COV	-0.069	-1.01
RET_COV	-0.180**	-2.15
Observations	344,374	
Adjusted R-squared	0.512	
Industry FE	YES	
Year FE	YES	
Clustered SE	Firm-pair & Year	

Notes: This table presents the results from estimating regression equation (11) with standard errors clustered by firm-pair and year. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level (two-tailed).

Table 8. Supplementary analyses for *H1* and *H2* (**Panel C:** Supplementary results for *H1* with *ACCTCOMPAT* as the measure of accounting comparability)

Variables	ACCTCOMPAT (1)		ACCTCOMPAT (2)	
	Coefficient	*t-stat*	*Coefficient*	*t-stat*
SAME_TOP_INST	0.084***	6.08		
SAME_TOP3			0.067***	6.05
SAME_AUD	-0.004	-0.27	0.001	0.08
IOR_DIFF	0.372***	9.98	0.404***	9.87
IOR_MIN	0.988***	18.11	0.929***	15.71
SIZE_DIFF	0.022***	3.50	0.030***	4.81
SIZE_MIN	-0.100***	-9.45	-0.070***	-6.31
LEV_DIFF	-1.727***	-34.41	-1.672***	-33.36
LEV_MIN	-3.034***	-53.44	-3.006***	-51.34
BTM_DIFF	-1.910***	-56.95	-1.871***	-51.36
BTM_MIN	-4.300***	-93.08	-4.099***	-88.09
ROA_DIFF	0.034	0.16	0.348	1.53
ROA_MIN	11.416***	35.34	12.106***	33.48
LOSS_DIFF	-2.944***	-81.82	-2.897***	-78.85
LOSS_MIN	-1.770***	-30.43	-1.822***	-30.93
ACCR_DIFF	-5.275***	-27.69	-5.719***	-27.88
ACCR_MIN	-6.056***	-21.03	-7.463***	-24.70
SALES_VOL_DIFF	0.000***	4.33	0.000***	3.54
SALES_VOL_MIN	0.000	0.25	0.000	0.58
SALES_GROWTH_DIFF	0.081***	9.68	0.085***	9.58
SALES_GROWTH_MIN	0.765***	12.61	0.972***	16.12
SALES_GROWTH_VOL_DIFF	-0.033***	-16.82	-0.032***	-14.78
SALES_GROWTH_VOL_MIN	-0.815***	-11.93	-0.812***	-11.34
CFO_DIFF	-4.690***	-30.89	-5.120***	-30.69
CFO_MIN	-10.794***	-39.07	-11.825***	-39.04
CFO_VOL_DIFF	-0.000***	-3.95	-0.000***	-3.72
CFO_VOL_MIN	0.001*	1.78	0.001	1.25
CFO_COV	-0.039	-1.15	0.015	0.42
RET_COV	0.083**	2.52	0.028	0.80
Observations	604,376		523,952	
Adjusted R-squared	0.525		0.520	
Industry FE	YES		YES	
Year FE	YES		YES	
Clustered SE	Firm-pair		Firm-pair	

*Notes: This table presents the results from estimating regression equation (10) with ACCTCOMPAT as the measure of accounting comparability. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level (two-tailed).*

Table 8. Supplementary analyses for *H1* and *H2* (**Panel D:** Supplementary results for *H2* with *ACCTCOMPAT* as the measure of accounting comparability)

Variables	ACCTCOMPAT	
	Coefficient	*t-stat*
MONITORING	0.240***	13.22
NON_MONITORING	-0.073**	-2.05
SAME_AUD	-0.042*	-1.92
IOR_DIFF	0.349***	7.45
IOR_MIN	0.994***	14.29
SIZE_DIFF	0.011	1.44
SIZE_MIN	-0.117***	-8.48
LEV_DIFF	-1.757***	-28.67
LEV_MIN	-3.173***	-44.79
BTM_DIFF	-1.838***	-46.31
BTM_MIN	-4.137***	-73.06
ROA_DIFF	0.252	1.03
ROA_MIN	12.358***	31.11
LOSS_DIFF	-2.797***	-63.49
LOSS_MIN	-1.701***	-22.99
ACCR_DIFF	-5.852***	-22.94
ACCR_MIN	-7.165***	-19.07
SALES_VOL_DIFF	0.000***	2.68
SALES_VOL_MIN	-0.000	-0.94
SALES_GROWTH_DIFF	0.151***	10.29
SALES_GROWTH_MIN	0.809***	10.83
SALES_GROWTH_VOL_DIFF	-0.028***	-10.52
SALES_GROWTH_VOL_MIN	-1.003***	-11.41
CFO_DIFF	-5.238***	-28.47
CFO_MIN	-11.379***	-32.81
CFO_VOL_DIFF	-0.000	-0.27
CFO_VOL_MIN	0.001	1.45
CFO_COV	-0.017	-0.39
RET_COV	-0.045	-1.05
Observations	340,167	
Adjusted R-squared	0.500	
Industry FE	YES	
Year FE	YES	
Clustered SE	Firm-pair	

*Notes: This table presents the results from estimating regression equation (11) with ACCTCOMPAT as the measure of accounting comparability. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level (two-tailed).*

5. CONCLUSION

Understanding how different economic agents influence accounting comparability is of considerable interest to regulators, practitioners, and academics. Prior studies show that institutional investors exert a considerable impact on cross-country accounting comparability (Fang et al., 2015). In this study, I extend this line of research by examining the relationship between top institutional investors and accounting comparability in a single country setting, where firms already follow the same accounting standard. Overall, I find that the sharing of a TII is associated with higher accounting comparability. In addition, I find that accounting comparability increases with the similarity in top institutional investors' monitoring incentives.

To supplement the main findings, I also conduct matched-pairs, difference-in-differences analyses to examine the effect of firm-pair switches to (or from) similar TIIs on accounting comparability. I provide evidence that accounting comparability increases following a change to the same TIIs, and decreases following a change to different TIIs. The findings suggest that TIIs, besides being users of accounting information, also influence the quality of accounting information.

My study responds directly to the call in Francis et al. (2014) for more research on the factors that give rise to accounting comparability. Consistent with Francis et al. (2014), my findings imply that economic agents exert significant influence on accounting comparability beyond the adoption of a common set of accounting standards. My study also complements prior works

in the accounting and finance literature that examine the relationship between the heterogeneity of large shareholders and corporate outcomes (Brickley et al., 1988; Bushee, 1998). My findings imply that the strength of TIIs' monitoring incentive significantly explains the variation in accounting comparability between firms.

My study also contributes to the emerging literature examining the influence of common ownership on corporate outcomes and governance. Recent studies in this literature show that common ownership by large investors has implications for a firm's competitive behavior, managerial incentive, and corporate governance. My findings extend this literature by showing that common ownership influence the quality of accounting information. My study also differs from most research in this literature, as I focus on the common ownership by the TIIs, instead of the common ownership of a concentrated group of institutional investors.

Notwithstanding the results, this study is also subject to several limitations. First, the study may suffer from attrition bias, since all variables are aggregated over a rolling 16-quarter (or 4-year) period. This aggregation results in data loss, as observations must have sufficient data for at least 16 consecutive quarters (or 4 consecutive years) to be included in the sample. Second, for institutional ownership, the aggregation of data implies that institutional investors must invest in the firm for at least 16 consecutive quarters to be included in the sample. As a result, the sample is biased towards institutional investors that are more likely to actively monitor their portfolio firms, due to their long investment horizons.

REFERENCES

1. Admati, A. R., & Pfleiderer, P. (2009). The "Wall Street Walk" and shareholder activism: Exit as a form of voice. *The Review of Financial Studies, 22*(7), 2645–2685. https://doi.org/10.1093/rfs/hhp037
2. Agrawal, A., & Mandelker, G. N. (1990). Large shareholders and the monitoring of managers: The case of antitakeover charter amendments. *The Journal of Financial and Quantitative Analysis, 25*(2), 143–161. https://doi.org/10.2307/2330821
3. Ajinkya, B., Bhojraj, S., & Sengupta, P. (2005). The association between outside directors, institutional investors and the properties of management earnings forecasts. *Journal of Accounting Research, 43*(3), 343–376. https://doi.org/10.1111/j.1475-679x.2005.00174.x
4. Ali, A., Durtschi, C., Lev, B., & Trombley, M. (2004). Changes in institutional ownership and subsequent earnings announcement abnormal returns. *Journal of Accounting, Auditing & Finance, 19*(3), 221–248. https://doi.org/10.1177/0148558X0401900301
5. Almazan, A., Hartzell, J. C., & Starks, L. T. (2005). Active institutional shareholders and costs of monitoring: Evidence from executive compensation. *Financial Management, 34*(4), 5–34. https://doi.org/10.1111/j.1755-053X.2005.tb00116.x
6. Anton, M., Ederer, F., Gine, M., & Schmalz, M. (2018). *Common ownership, competition and top management incentives* (Finance Working Paper No. 511/2017). http://doi.org/10.2139/ssrn.2802332
7. Azar, J., Schmalz, M., & Tecu, I. (2018). Anticompetitive effects of common ownership. *Journal of Finance, 73*(4), 1513–1565. https://doi.org/10.1111/jofi.12698
8. Backus, M., Conlon, C., & Sinkinson, M. (2019). *Common ownership in America: 1980–2017* (NBER Working paper No. 25454). https://doi.org/10.3386/w25454
9. Barth, M. E., Landsman, W. R., Lang, M., & Williams, C. (2012). Are IFRS-based and US GAAP-based accounting amounts comparable? *Journal of Accounting and Economics, 54*(1), 68–93. https://doi.org/10.1016/j.jacceco.2012.03.001
10. Bartov, E., Radhakrishnan, S., & Krinsky, I. (2000). Investor sophistication and patterns in stock returns after earnings announcement. *The Accounting Review, 75*(1), 43-63. https://doi.org/10.2308/accr.2000.75.1.43
11. Basu, S. (1997). The conservatism principle and the asymmetric timeliness of earnings. *Journal of Accounting and Economics, 24*(1), 3–37. https://doi.org/10.1016/S0165-4101(97)00014-1
12. Bhojraj, S., & Sengupta, P. (2003). Effects of corporate governance on bond ratings and yields: The role of institutional investors and outside directors. *The Journal of Business, 76*(3), 455–475. https://doi.org/10.1086/344114
13. Brickley, J. A., Lease, R. C., & Smith, C. W., Jr. (1988). Ownership structure and voting on antitakeover amendments. *Journal of Financial Economics, 20*, 267–291. https://doi.org/10.1016/0304-405X(88)90047-5
14. Brochet, F., Jagolinzer, A. D., & Riedl, E. J. (2013). Mandatory IFRS adoption and financial statement comparability. *Contemporary Accounting Research, 30*(4), 1373–1400. https://doi.org/10.1111/1911-3846.12002

15. Burkart, M., Gromb, D., & Panunzi, F. (1997). Large shareholders, monitoring, and the value of the firm. *The Quarterly Journal of Economics, 112*(3), 693–728. https://doi.org/10.1162/003355397555325
16. Bushee, B. J. (1998). The influence of institutional investors on myopic R&D investment behavior. *The Accounting Review, 73*(3), 305–333. Retrieved from https://www.jstor.org/stable/248542
17. Bushee, B. J. (2001). Do institutional investors prefer near-term earnings over long-run value? *Contemporary Accounting Research, 18*(2), 207–246. https://doi.org/10.1506/J4GU-BHWH-8HME-LE0X
18. Bushee, B. J., & Goodman, T. H. (2007). Which institutional investor trade based on private information about earnings and returns? *Journal of Accounting Research, 45*(2), 289–322. https://doi.org/10.1111/j.1475-679X.2007.00234.x
19. Cascino, S., & Gassen, J. (2015). What drives the comparability effect of mandatory IFRS adoption? *Review of Accounting Studies, 20*(1), 242–282. https://doi.org/10.1007/s11142-014-9296-5
20. Chen, C.-W., Collins, D., Kravet, T. D., & Mergenthaler, R. D. (2018). Financial statement comparability and the efficiency of acquisition decisions. *Contemporary Accounting Research, 35*(1), 164–202. https://doi.org/10.1111/1911-3846.12380
21. Chen, J. Z., Chen, M. H., Chin, C. L., & Lobo, G. J. (2019). Do firms that have a common signing auditor exhibit higher earnings comparability? *The Accounting Review, 3,* 115–143. https://doi.org/10.2139/ssrn.3408517
22. Chen, X., Harford, J., & Li, K. (2007). Monitoring: Which institutions matter? *Journal of Financial Economics, 86*(2), 279–305. https://doi.org/10.1016/j.jfineco.2006.09.005
23. Chung, R., Firth, M., & Kim, J.-B. (2002). Institutional monitoring and opportunistic earnings management. *Journal of Corporate Finance, 8*(1), 29–48. https://doi.org/10.1016/S0929-1199(01)00039-6
24. Coffee, J. C., Jr. (1991). Liquidity versus control: The institutional investor as corporate monitor. *Columbia Law Review, 91*(6), 1277–1368. https://doi.org/10.2307/1123064
25. Daske, H., Hail, L., Leuz, C., & Verdi, R. S. (2013). Adopting a label: Heterogeneity in the economic consequences around IAS/IFRS adoptions. *Journal of Accounting Research, 51*(3), 495–547. https://doi.org/10.1111/1475-679X.12005
26. De Franco, G., Kothari, S. P., & Verdi, R. S. (2011). The benefits of financial statement comparability. *Journal of Accounting Research, 49*(4), 895–931. https://doi.org/10.1111/j.1475-679X.2011.00415.x
27. Demsetz, H. (1983). The structure of ownership and the theory of the firm. *The Journal of Law & Economics, 26*(2), 375–390. https://doi.org/10.1086/467041
28. Dou, Y., Hope, O.-K., Thomas, W. B., & Zou, Y. (2018). Blockholder exit threats and financial reporting quality. *Contemporary Accounting Research, 35*(2), 1004–1028. https://doi.org/10.1111/1911-3846.12404
29. Edmans, A., Levit, D., & Reilly, D. (2019). Governance under common ownership. *Review of Financial Studies, 32*(7), 2673–2719. https://doi.org/10.1093/rfs/hhy108
30. Fang, V. W., Maffett, M., & Zhang, B. (2015). Foreign institutional ownership and the global convergence of financial reporting practices. *Journal of Accounting Research, 53*(3), 593–631. https://doi.org/10.1111/1475-679X.12076
31. Ferreira, M. A., & Matos, P. (2008). The colors of investors' money: The role of institutional investors around the world. *Journal of Financial Economics, 88*(3), 499–533. https://doi.org/10.1016/j.jfineco.2007.07.003
32. Financial Accounting Standards Board (FASB). (1980). *Statement of Financial Accounting Concepts No. 2.* Retrieved from https://www.fasb.org/jsp/FASB/Page/PreCodSectionPage&cid=1176156317989
33. Francis, J. R., Pinnuck, M. L., & Watanabe, O. (2014). Auditor style and financial statement comparability. *The Accounting Review, 89*(2), 605–633. https://doi.org/10.2308/accr-50642
34. Gilje, E. P., Gormley, T. A., & Levit, D. (2019). *Who's paying attention? Measuring common ownership and its impact on managerial incentives* (NBER Working Paper No. 25644). https://doi.org/10.3386/w25644
35. Gillan, S. L., & Starks, L. T. (2000). Corporate governance proposals and shareholder activism: The role of institutional investors. *Journal of Financial Economics, 57*(2), 275–305. https://doi.org/10.1016/S0304-405X(00)00058-1
36. Gillan, S. L., & Starks, L. T. (2003). *Corporate governance, corporate ownership, and the role of institutional investors: A global perspective.* https://doi.org/10.2139/ssrn.439500
37. Gompers, P. A., & Metrick, A. (2001). Institutional investors and equity prices. *Quarterly Journal of Economics, 116*(1), 229–259. https://doi.org/10.1162/003355301556392
38. Graham, J. R., Harvey, C. R., & Rajgopal, S. (2006). Value destruction and financial reporting decision. *Financial Analyst Journal, 62*(6), 27–39. https://doi.org/10.2469/faj.v62.n6.4351
39. Gross, C., & Perotti, P. (2017). Output-based measurement of accounting comparability: A survey of empirical proxies. *Journal of Accounting Literature, 39,* 1–22. https://doi.org/10.1016/j.acclit.2017.09.002
40. Hand, J. R. M. (1990). A test of the extended functional fixation hypothesis. *The Accounting Review, 65*(4), 740–763. Retrieved from https://www.jstor.org/stable/247648
41. Hartzell, J. C., & Starks, L. T. (2003). Institutional investors and executive compensation. *Journal of Finance 58*(6), 2351–2374. https://doi.org/10.1046/j.1540-6261.2003.00608.x
42. He, J., & Huang, J. (2017). Product market competition in a world of cross-ownership: Evidence form institutional blockholdings. *Review of Financial Studies, 30*(8), 2674–2718. https://doi.org/10.1093/rfs/hhx028
43. Hsu, G. C.-M., & Koh, P.-S. (2005). Does the presence of institutional investors influence accruals management? Evidence from Australia. *Corporate Governance: An International Review, 13*(6), 809–823. https://doi.org/10.1111/j.1467-8683.2005.00472.x
44. Huddart, S. (1993). The effect of large shareholder on corporate value. *Management Science, 39*(11), 1299–1438. https://doi.org/10.1287/mnsc.39.11.1407
45. Imhof, M. J., & Seavey, S. E., & Smith, D. B. (2017). Comparability and cost of equity capital. *Accounting Horizons, 31*(2), 125–138. https://doi.org/10.2308/acch-51710
46. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X
47. Kahn, C., & Winton, A. (1998). Ownership structure, speculation, and shareholder intervention. *The Journal of Finance, 53*(1), 99–129. https://doi.org/10.1111/0022-1082.45483
48. Kang, J.-K., Luo, J., & Na, H. S. (2018). Are institutional investors with multiple blockholdings effective monitors? *Journal of Financial Economics, 128*(3), 576–602. https://doi.org/10.1016/j.jfineco.2018.03.005

49. Ke, B., & Petroni, K. (2004). How informed are actively trading institutional investors? Evidence from their trading behavior before a break in a string of consecutive earnings increases. *Journal of Accounting Research 42*(5), 895–927. https://doi.org/10.1111/j.1475-679X.2004.00160.x

50. Kim, J. B., Li, L., Lu, L. Y., & Xu, Y. (2016). Financial statement comparability and stock price crash risk. *Journal of Accounting and Economics, 61*(2–3), 294–312. https://doi.org/10.1016/j.jacceco.2015.12.003

51. Kim, S., Kraft, P., & Ryan, S. G. (2013). Financial statement comparability and credit risk. *Review of Accounting Studies, 18*(3), 783–823. https://doi.org/10.1007/s11142-013-9233-z

52. Koch, A., Panayides, M., & Thomas, S. (2020). Common ownership and competition in product markets. *Journal of Financial Economics, 139*(1), 109–137. https://doi.org/10.1016/j.jfineco.2020.07.007

53. Lobo, G. J., Neel, M., & Rhodes, A. (2018). Accounting comparability and relative performance evaluation in CEO compensation. *Review of Accounting Studies, 23,* 1137–1176. https://doi.org/10.1007/s11142-018-9447-1

54. Lopez, A. L., & Vives, X. (2020). Overlapping ownership, R&D spillovers, and antitrust policy. *Journal of Political Economy, 127*(5), 2394–2437. https://doi.org/10.1086/701811

55. Maffett, M. (2012). Financial reporting opacity and informed trading by international institutional investors. *Journal of Accounting and Economics, 54*(2–3), 201–220. https://doi.org/10.1016/j.jacceco.2012.09.002

56. Maug, E. (1998). Large shareholders as monitors: Is there a trade-off between liquidity and control. *The Journal of Finance, 53*(1), 65–98. https://doi.org/10.1111/0022-1082.35053

57. McCahery, J. A., Sautner, Z., & Starks, L. T. (2016). Behind the scenes: The corporate governance preferences of institutional investors. *The Journal of Finance, 71*(6), 2905–2932. https://doi.org/10.1111/jofi.12393

58. Mitra, S., & Cready, W. M. (2005). Institutional stock ownership, accrual management, and information environment. *Journal of Accounting, Auditing & Finance, 20*(3), 257–286. https://doi.org/10.1177/0148558X0502000304

59. Neel, M. (2017). Accounting comparability and economic outcomes of mandatory IFRS adoption. *Contemporary Accounting Research, 34*(1), 658–690. https://doi.org/10.1111/1911-3846.12229

60. O'Brien, P., & Bhushan, R. (1990). Analyst following and institutional ownership. *Journal of Accounting Research 28*(Supplement), 55–76. https://doi.org/10.2307/2491247

61. Schipper, K. (2003). Principles-based accounting standards. *Accounting Horizons, 17*(1), 61–72. https://doi.org/10.2308/acch.2003.17.1.61

62. Shiller, R. J., & Pound, J. (1989). Survey evidence on diffusion of interest and information among investors. *Journal of Economic Behavior and Organization, 12*(1), 47–66. https://doi.org/10.1016/0167-2681(89)90076-0

63. Shleifer, A., & Vishny, R. W. (1986). Large shareholders and corporate control. *Journal of Political Economy, 94*(3, Part 1), 461–488. https://doi.org/10.1086/261385

64. Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *Journal of Finance, 52*(2), 737–783. https://doi.org/10.1111/j.1540-6261.1997.tb04820.x

65. Smith, M. P. (1996). Shareholder activism by institutional investors: Evidence from CalPERS. *The Journal of Finance, 51*(1), 227–252. https://doi.org/10.1111/j.1540-6261.1996.tb05208.x

66. Van Nuys, K. (1993). Corporate governance through the proxy process. *Journal of Financial Economics, 34*(1), 101–132. https://doi.org/10.1016/0304-405X(93)90042-A

67. Wang, C. (2014). Accounting standards harmonization and financial statement comparability: Evidence from transnational information transfer. *Journal of Accounting Research, 52*(4), 955–992. https://doi.org/10.1111/1475-679X.12055

68. Yip, R. W. Y., & Young, D. (2012). Does mandatory IFRS adoption improve information comparability? *The Accounting Review, 87*(5), 1767–1789. https://doi.org/10.2308/accr-50192

69. Zeckhauser, R. J., & Pound, J. (1990). Are large shareholders effective monitors? An investigation of share ownership and corporate performance. In R. G. Hubbard (Ed.), *Asymmetric information, corporate finance, and investment* (Chapter 6, pp. 149–180). Retrieved from https://www.nber.org/system/files/chapters/c11471/c11471.pdf

APPENDIX

Table A.1. Variable names and definitions

Variable name	Definition
ACCTCOMP	Firm-pair accounting comparability computed following De Franco et al. (2011).
ACCTCOMPAT	Firm-pair accounting comparability adjusted for accounting conservatism.
SAME_TOP_INST	Indicator variable equals 1 for firm-pairs that have the same top institutional investors, and 0 otherwise.
SAME_TOP3	Indicator variable equals 1 for firm-pairs that have at least one similar institutional investor who are among their top 3 largest investors, and 0 otherwise.
MONITORING	Indicator variable equals 1 if firm-pair's top institutional investors are both monitoring institutions, and 0 otherwise. Monitoring institutions includes investment firms, independent investment advisors, corporate and public pension funds, and endowment.
NON_MONITORING	Indicator variable equals 1 if firm-pair's top institutional investors are both non-monitoring institutions, and 0 otherwise. Non-monitoring institutions include banks and insurance companies.
BNK	Indicator variable equals 1 if firm-pair's top institutional investors are both banks, and 0 otherwise.
INS	Indicator variable equals 1 if firm-pair's top institutional investors are both insurance companies, and 0 otherwise.
BNK_INS	Indicator variable equals 1 if firm-pair's top institutional investors are banks and insurance companies, and 0 otherwise.
INV	Indicator variable equals 1 if firm-pair's top institutional investors are both investment firms, and 0 otherwise.
IIA	Indicator variable equals 1 if firm-pair's top institutional investors are both independent investment advisors, and 0 otherwise.
INV_IIA	Indicator variable equals 1 if firm-pair's top institutional investors are investment firms and independent investment advisors, and 0 otherwise.
SAME_AUD	Indicator variable equals 1 if a pair of firms share the same Big 4 auditor over the prior 4-year period.
IOR_DIFF	Absolute difference in the level of institutional ownership in the firm-pair. The level of institutional ownership computed as the average level of institutional ownership over the prior 4-year period.
IOR_MIN	Minimum value of the average level of institutional ownership in the firm-pair
SIZE_DIFF	Absolute difference in size in the firm-pair. Size is defined as the natural log of total assets, averaged over the prior 4-year period.
SIZE_MIN	Minimum value of size in the firm-pair.
LEV_DIFF	Absolute difference in leverage in the firm-pair. Leverage is defined as the ratio of total debt to total assets, averaged over the prior 4-year period.
LEV_MIN	Minimum value of leverage in the firm-pair.
BTM_DIFF	Absolute difference in book-to-market ratio in the firm-pair. Book-to-market ratio is computed as the ratios of book to market value of equity, averaged over the prior 4-year period.
BTM_MIN	Minimum value of the book-to-market ratio in the firm-pair.
ROA_DIFF	Absolute difference in return on assets in the firm-pair. Return on assets is computed as the ratio of earnings over total assets, averaged over the prior 4-year period.
ROA_MIN	Minimum value of return on assets in the firm-pair.
LOSS_DIFF	Absolute difference in loss probability in the firm-pair. Loss probability is defined as the proportion of quarters with negative earnings over the prior 16-quarter period.
LOSS_MIN	Minimum value of loss probability in the firm-pair.
ACCR_DIFF	Absolute difference in accruals in the firm-pair. Accruals are computed as the ratio of total accruals over total assets, averaged over the prior 4-year period.
ACCR_MIN	Minimum value of accruals in the firm-pair.
SALES_VOL_DIFF	Absolute difference sales volatility in the firm-pair. Sales volatility is defined as the standard deviation of sales over the prior 16-quarter period.
SALES_VOL_MIN	Minimum value of sales volatility in the firm-pair.
SALES_GROWTH_DIFF	Absolute difference in sales growth in the firm-pair. Sales growth is computed as the percentage change in annual sales, averaged over the prior 4-year period.
SALES_GROWTH_MIN	Minimum value of sales growth in the firm-pair.
SALES_GROWTH_VOL_DIFF	Absolute difference in sales growth volatility in the firm-pair. Sales growth volatility is computed as the standard deviation of sales growth over a rolling 16-quarter period.
SALES_GROWTH_VOL_MIN	Minimum value of sales growth volatility in the firm-pair.
CFO_DIFF	Absolute difference in cash flow from operations in the firm-pair. Cash flow from operations is scaled by total assets and averaged over the prior 4-year period.
CFO_MIN	Minimum value of cash flow from operations in the firm-pair.
CFO_VOL_DIFF	Absolute difference in cash flow volatility in the firm-pair. Cash flow volatility is computed as the standard deviation of cash flow from operations over the prior 16-quarter period.
CFO_VOL_MIN	Minimum value of cash flow volatility in the firm-pair.
CFO_COV	Cash flow covariation in the firm-pair, measured as the adjusted R-squared from the following regression equation: $CFO_{it} = \alpha + \beta CFO_{jt} + \varepsilon_t$, using cash flow from operations from the prior 16 quarters.
RET_COV	Return covariation in the firm-pair, measured as the adjusted R-squared from the following regression equation: $RET_{it} = \alpha + \beta RET_{jt} + \varepsilon_t$, using quarterly stock returns from the prior 16 quarters.
TREAT	When treatment is defined as the change to the same top institutional investor, *TREAT* is an indicator variable equals 1 for firm-pairs that experience a change the same top institutional investor, and equals 0 for firm-pairs that have different top institutional investors in either period.
	When treatment is defined as the change to different top institutional investors, *TREAT* is an indicator variable equals 1 for firm-pairs that experience a change to different top institutional investor, and equals 0 for firm-pairs that have similar top institutional investor in both period.
POST	Indicator variable equals 1 for the period after firm-pairs experience a change to (or from) having the same top institutional investor.