Blockholder Characteristics and Earnings Quality

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This study focuses on the impact of blockholder characteristics on earnings quality. Most of the studies in literature make the implicit assumption that blockholders are a homogeneous group. This study is one of few studies that acknowledges the heterogeneity of blockholders and attempts to understand the unexplained proportion of blockholder heterogeneity. Earnings quality is calculated using the modified Dechow and Dichev (2002) model with fixed effects (FDD model) by Lee and Masulis (2009), and it is regressed on various blockholder characteristics. The results show that earnings quality is lower for firms with market-driven and multilateral blockholders.

INTRODUCTION

When investors evaluate the financial health of a firm, reported earnings are the center of attention. Nevertheless, managers tend to misstate earnings. When managers are under pressure to meet market expectations, the likelihood of them engaging in earnings management activities increases. The use of accrual-basis accounting lays the groundwork for distortion as estimation of accruals is a subjective practice.

Distortion of financial statements leads to poor quality accounting information, which makes it difficult for investors to evaluate a firm's true financial health, allows room for private benefits, and increases information asymmetry between managers and investors (Jo & Kim, 2007).

There are various mechanisms to prevent managers from engaging in earnings management, however. One is the existence of large shareholders, or blockholders, which is the main focus of this study. The existence of blockholders has been associated with better monitoring of management (Shleifer & Vishny, 1986; Admati, Pfleiderer, & Zechner, 1994; Huddart, 1993; Maug, 1998), less severe agency problems between managers and shareholders (Gillan & Starks, 2003), and a lower likelihood of earnings management (Dechow, Sloan, & Sweeney, 1996; Chung, Firth, & Kim, 2002; Cheng & Reitanga, 2009).

Most studies in the literature make the implicit assumption that blockholders are a homogeneous group and analyze the impact of their existence alone (Chung et al., 2002; Klein, 2002). However, blockholders are a heterogeneous group, and only a few studies acknowledge their heterogeneity (Cronqvist & Fahlenbrach, 2009 and Dou, Hope, Thomas, & Zou, 2016). Cronqvist and Fahlenbrach

(2009) asserts that blockholders vary in their beliefs, skills, and preferences. Dou et al. (2016) posit that a significant part of blockholder heterogeneity is still unexplained.

This study attempts to understand the unexplained proportion of blockholder heterogeneity and analyzes the impact of blockholders on earnings quality, specifically accrual quality. In this study, we use an inverse measure of earnings quality calculated by using the FDD model that Lee and Masulis (2009) propose. FDD model is the modified Dechow and Dichev (2002) model of McNichols (2002) with fixed effects.

We then regress this inverse measure of earnings quality on blockholder characteristics. Controlling for firm characteristics and auditor choice, we examine the impact of various types of blockholders on earnings quality. Our results show that earnings quality is lower for firms with market-driven and multilateral blockholders.

LITERATURE REVIEW

Earnings Quality

Among the many components of financial statements, reported earnings have always been the center of attention. However, reported earnings are subject to deliberate or inadvertent misstatement. Typically, managers use accrual-basis accounting to communicate a firm's true earnings to investors. This method values relevancy of information over reliability and records revenues and expenses when they accrue, or in the absence of a cash transaction. Hence, the term accrual refers to any adjustment on revenue and expense accounts.

An example of accruals is a sale made on credit. When a firm sells merchandise on credit, the revenue is recorded at the time of sale, not when the payment is actually received. The sale made on credit is recorded as accounts receivable. When the firm decides that a receivable becomes uncollectible, the amount is written off as bad debt on the income statement. Jackson and Liu (2010) found that firms manage bad debt expenses to meet or beat analysts' earnings forecasts.

Another way to manage earnings is through depreciation charges on property, plant, and equipment (PPE). SEC litigation release no. 17435 dated March 26, 2002, which concerns the complaint charging the founder and five former top officers of Waste Management, Inc., includes the following example. "Among other things, defendants avoided depreciation expenses on their garbage trucks by both assigning unsupported and inflated salvage values and extending their useful lives."[1]

Accruals can be divided into two categories: Discretionary (abnormal) accruals and non-discretionary accruals, which are obligatory and depend on a firm's business model, operating environment, and accounting policies (Christensen, Frimor, & Sabac, 2013). There is no room for managerial discretion in non-discretionary accruals. Conversely, discretionary accruals are non-obligatory, and managers use their own discretion when recording them.

Often, under pressure to meet or beat the expectations of analysts and investors, managers have a tendency to manage earnings. Earnings management is defined as the act of manipulating accruals to paint an overly positive picture of a firm's business activities and financial state. In his often-cited speech "The Numbers Game," Arthur Levitt, former chairman of the Securities and Exchange Commission, talks about the anecdotal example of a firm that failed to meet its earning estimates by one penny and lost more than six percent of its stock value in one day.[2]

Distortion of accruals creates poor quality accounting information that makes it difficult for investors to evaluate a firm's true financial health, allows room for private benefits, and increases information asymmetry between managers and investors (Jo & Kim, 2007).

Many approaches have been used in literature to proxy for earnings quality. Typically, they involve the use of a regression method, and the variables change from one approach to another. The main problem with different approaches is estimation errors. Some of the commonly used approaches in recent literature are explained here.

The Jones (1991) model was one of the first to be used widely in literature. She uses a regression model where the dependent variable is total accruals in current year scaled by assets in the past year.

Then, the estimates of firm-specific parameters that are obtained from this model during the estimation period are used in the model for nondiscretionary accruals. The prediction error obtained from this model shows the level of discretionary accruals. The higher the level of discretionary accruals, the lower the accrual quality.

Dechow, Sloan and Sweeney (1995) investigates alternative models that measure accrual quality to detect earnings management. As a result of their analyses, they propose a modified version of the Jones (1991) model and assert that their model is better able to detect earnings management.

A divergence from this method to estimate accrual quality comes with Dechow and Dichev (2002). The authors analyze the quality of accruals and earnings, paying special attention to estimation errors. Asserting that the quality of accruals and earnings is negatively related to the magnitude of estimation errors, they introduce a new approach to assess earnings quality. Their method uses the standard deviation of the firm-specific residuals from the regression of their accrual measure, which is the change in working capital, on past, current, and future cash flow from operations to proxy for accruals quality. All of the variables are scaled by total assets. The residuals from this regression show the accruals that are not related to cash flow from operations, and a higher standard deviation is a signal of lower accrual quality.

McNichols (2002) establishes a bridge between Jones (1991) model and Dechow and Dichev (2002) model. The study analyzes the Dechow and Dichev (2002) model (DD model) and provides empirical evidence of measurement error in their application. She adapts the DD model to assess the specification of the Jones (1991) model and finds that estimates from this new model, which will be referred to as the MDD model hereafter, are more significantly related with cash flows.

Later, Lee and Masulis (2009) analyze the DD model and the MDD model and propose a new model. They extend the MDD model to include firm fixed effects to capture unobserved firm characteristics, such as accounting policies and cash flow characteristics. The authors assert that their model, which will be referred to as the FDD model hereafter, mitigates problems caused by possibly omitted variables in the MDD model and directly adjusts for heteroskedasticity.

Blockholders

Blockholders are defined as large shareholders that typically own at least 5 percent of a firm's outstanding shares (Klein, 2002; Krishnan & Lee, 2009; Dou et al., 2016). They can be institutions, such as insurance companies, pension funds, banks, or investment companies, or they can be individuals, such as outside investors or firm managers.

The existence of blockholders in firms is often perceived as a sign of strong corporate governance regardless of whether the shareholder is an insider or an outsider. Outsider blockholders are seen as an effective monitoring mechanism because they are able to influence management's activities by their shareholdings, which grant them voting rights (Klein, 2002; Gillan & Starks, 2003; Demiralp, D'Mello, Schlingemann, & Subramaniam, 2011), and by trading their shares (Gillan & Starks, 2003). The existence of large outside investors is associated with higher abnormal returns following equity issues (Borokhovich, Brunarski, Harman, & Parrino, 2006), decreased likelihood of earnings management (Dechow et al., 1996; Chung et al., 2002; Cheng & Reitanga, 2009), stricter control over executive compensation (David, Kochhar, & Levitas, 1998; Bertrand & Mullainathan, 2001), and increased management turnover (Kang & Shivdasani, 1995).

On the other hand, insider blockholders, such as managers, are seen as better agents because their stock ownership aligns their interests with those of outside shareholders. Managerial ownership is associated with decreased likelihood of earnings management (Warfield, Wild, & Wild, 1995).

The Impact of Blockholders on Earnings Quality

Since there are certain costs associated with monitoring managers' actions, only large shareholders have sufficient incentive to monitor managers (Gillan & Starks, 2003). Typically, the existence of large shareholders, or blockholders, mitigates the agency problem between managers and shareholders (Gillan & Starks, 2003) by monitoring the managers (Shleifer & Vishny, 1986; Admati et al., 1994; Huddart,

1993; Maug, 1998) and decreases the likelihood of earnings management (Dechow et al., 1996; Chung et al., 2002; Cheng & Reitanga, 2009).

Many studies that analyze the impact of blockholders consider them to be a homogeneous group (Chung et al., 2002; Klein, 2002). However, Cronqvist and Fahlenbrach (2009) assert that blockholders are a heterogeneous group, and their results suggest that blockholders vary in their beliefs, skills, and preferences.

The studies that acknowledge the heterogeneity among blockholders analyze the impact of various blockholder characteristics by classifiying them into categories based on their shareholding duration (Demiralp et al., 2011; Dou et al., 2016), affiliation status (Borokhovich et al., 2006), active status and shareholding size (Cheng & Reitanga, 2009; Dou et al., 2016), response to pressure (David et al., 1998), insider status (Cronqvist & Fahlenbrach, 2009; Dou et al., 2016), institution type (Cronqvist & Fahlenbrach, 2009), and geographic proximity to firm (Dou et al., 2016).

To date, Cronqvist and Fahlenbrach (2009) and Dou et al. (2016) are the only studies in literature that explore the impact of blockholders on corporate policies and firm accounting practices on a large scale. However, a significant proportion of blockholder heterogeneity still remains unexplained, so there is need for additional research to better understand the specific mechanisms through which blockholders affect financial reporting (Dou et al., 2016).

This study adds to the literature on blockholder heterogeneity by focusing on various blockholder attributes, such as incentive, insider/outsider status, shareholding size, geographic proximity, and shareholding duration.

DATA AND VARIABLES

Data

Our initial sample consists of firms listed in the RiskMetrics database because it contains information regarding shares held by board members and helps us identify the independence of blockholders. Then, to obtain firm characteristics, we merge this dataset with the Compustat database.

Holderness (2009) discusses the necessity of hand-collecting data from proxy statements and the challenges associated with this process when working with block ownership data. Thus, we collect data about block ownership from proxy statements (DEF 14A) available online on the SEC's EDGAR database for each firm and follow Holderness's approach to overcome the challenges that arise in data collection.

Our data structure is annual and the firm-year observations span the years 2009, 2010, and 2011.[3] Using hand-collected data helps to make the data collection manageable. Following previous literature, we exclude firms with missing data, financial firms (SIC codes 6000-6999), utilities (SIC codes 4910-4940), firms not listed on NYSE, and firms with dual-class shares (Cronqvist & Fahlenbrach, 2009). There are 1,069 observations in our final dataset. The 1,069 firm-year observations in our sample have 3,095 blockholders. There are 146 insiders and 2,949 outsiders.

Overall, 95% of the firms in our sample have blockholders that own at least 5% of the firm's stock. This is consistent with Holderness (2009), who asserts that 96% of the firms in his sample of 375 firms have blockholders that own at least 5% of the firm's stock.

Industry differences play an important role on firms' accrual policies. Rakestraw, Kumar and Maher (2015) hypothesize that the likelihood that a firm will manage its earnings is related to the industry in which it operates because certain industry factors, such as the existence and size of various assets, liabilities, earnings, and expenses, may increase or decrease the chances of managing earnings. Francis and Gunn (2015) mention that some industries have greater accounting complexity, and they use the existence of additional industry-specific accounting guidelines to proxy for this complexity. More specifically, they use the American Institute of Certified Public Accountants' Audit and Accounting Practice Guides and Financial Accounting Standards Board's Topic 900: Industry Series and assert that 18 of 48 Fama-French industries can be classified as complex. The authors show that accruals are

fundamentally different, and earnings are noisier in these industries. Typically, high-accrual firms have more potential to engage in earnings management (Francis, Maydew, & Sparks, 1999).

Francis and Gunn (2015) use the example of computer and software industry to demonstrate industry-specific complexity. This industry has been an area of debate due to its unique attributes. In his article published in the Wall Street Journal in 2002, Ken Brown mentions that firms in the software industry usually get into long-term contracts to supply and service their products. The author explains that some firms follow a conservative approach and book the revenue from a multi-year contract in equal parts for each year, while others follow an aggressive approach and book the bulk of the revenue in the first or second year. This, in turn, brings judgment in revenue recognition of these companies because the amount of services provided in the later years is unclear.[4]

Following literature, we use Fama-French's 48 industry classifications to analyze our sample. The number of observations in the sample of firms with blockholders is highest in Business Services (BusSv), Retail (Rtail), and Machinery (Mach) industries. Francis and Gunn (2015) classify Business Services under complex industries, and they classify Retail and Machinery under non-complex industries. In our regression analyses, we perform clustering at industry level to obtain robust standard errors that allow for heteroskedasticity and industry fixed effects (Ferreira & Laux, 2016).

On the other hand, the number of observations in the sample of firms without blockholders is highest in the Electrical Equipment (ElcEq) industry, which Francis and Gunn (2015) classify under non-complex industries.

Variables

Our dependent variable is a reverse measure of accrual quality measured by using the FDD model of Lee and Masulis (2009), which is explained in the literature review. The independent variables that are classified as blockholder characteristics and control variables are explained below.

Blockholder Characteristics

Incentive: Cronqvist and Fahlenbrach (2009) find blockholder effects to be more concentrated for investor categories, such as activists, pension funds, corporations, individuals, private equity firms, and mutual funds. Furthermore, Camara (2005) asserts that institutional investors have different incentives and classifies them into four categories. The first three categories are based on incentive-creating forces, such as market, political, and social forces, and the last category includes multilateral investors. We follow the classification in Camara (2005) and group blockholders into four different classes using four binary dummy variables that take the value 1 for firms that belong to that category. Then, we count the number of investors who belong to each investor class for each firm-year observation.

Camara (2005) asserts that institutional investors have concerns other than increasing shareholder wealth. Thus, at times they sacrifice shareholder wealth to obtain those benefits. Even when the institution is focused on maximizing shareholder wealth, its agents might have different motives that will reduce shareholder wealth. Accordingly, we expect to see different impacts on accrual quality for each investor class. The investor classes and their motives as described in Camara (2005) are provided below.

a) Market-Driven Blockholders: This class includes hedge funds, mutual funds, and venture capitalists. Financial gain motivates these investors. However, there are times when their focus is not to maximize the value of individual portfolio firms, or their managers may have other motives. Thus, we do not have a prediction for the sign of this variable.

b) Politically Driven Blockholders: This class includes state, public pension funds, and shareholders with a cause. These investors are typically insulated from market forces, and their need for the consent of others motivates them. Nonetheless, the degree to which their motives recede from maximizing shareholder wealth changes. Thus, we do not have a prediction for the sign of this variable.

c) Socially Driven Blockholders: This class includes gentlemen of affairs (investors who obtained substantial ownership by virtue of their position in society), founding families and plutocrats, wealthy managers, and technocrats. These investors are typically insulated from market and political forces, and internal psychological forces, including education, religion, and moral and cultural norms, motivate them.

Most of these investors are still somewhat sensitive to market and political forces. Thus, we expect to see a negative relationship between their existence and our reverse measure of accrual quality.

d) Multilateral Blockholders: This class includes private pension funds, bank trust departments, and insurers. These investors have numerous financial relationships with the firm. When the payoffs related to the other relationships differ from the one associated with equity ownership, they will diverge from maximizing shareholder value. Thus, we expect to see a positive relationship between their existence and our reverse measure of accrual quality.

Independence: Borokhovich et al., (2006), Cronqvist and Fahlenbrach (2007), and Dou et al., (2016) classify blockholders based on their independence status. In this study, we use a dummy variable that takes the value of 1 if more than half of the blockholders are insiders.

The existence of outsider blockholders is seen as a sign of good corporate governance. On the other hand, while managerial stock ownership aligns the interests of managers with those of shareholders, beyond a certain level, it may be a sign of managerial entrenchment. If that is the case, it would lead to worse accrual quality. Thus, we expect a positive relationship between our dummy variable and our reverse measure of accrual quality.

Shareholding Size: Cheng and Reitenga (2009), and Dou et al. (2016) use the size of blockholders' holdings of a firm's shares because blockholders with a larger holding size have greater influence on a firm's corporate policies. Thus, we use the average percentage of shares that blockholders hold for each firm-year observation. We expect to observe a negative relationship between these variables and our reverse measure of accruals quality.

Geographic Proximity: People typically know more about the companies around their town. Dou et al. (2016) uses a geographic proximity variable, and if the blockholders live within a 100-km radius of the firm, they are considered local blockholders. Following their method, we identify blockholders who are local and expect to observe a negative relationship between the number of local blockholders and our reverse measure of accrual quality.

Shareholding Duration: Demiralp et al. (2011) and Dou et al. (2016) assert that the shareholding duration of blockholders is also an important control variable. Demiralp et al. (2011) explains that institutions that make long-term investments in firms are more active monitors and focus on the long-term performance of the firm. Following Dou et al. (2016), we use a three-year threshold for a blockholder to be classified as a long-term investor. We use a binary dummy variable that takes the value of 1 for long-term investors and 0 otherwise. We expect to find a negative relationship between the number of long-term investors and our reverse measure of accrual quality.

Table 1 presents descriptive statistics for blockholder characteristics. On average, a firm has three blockholders, and an average blockholder holds 8.22% of the shares. The highest number of long-term and local blockholders in a firm is four, and there are firms with no long-term or local blockholders. The number of outsider blockholders is higher than the number of insider blockholders. Market-driven blockholders are the most prevalent type of investors in our sample.

TABLE 1
BLOCKHOLDER CHARACTERISTICS

This table presents descriptive statistics for blockholder characteristics.

Variable	Mean	Median	Std. Dev.	Min	Max
Average percentage of shares that blockholders hold	8.22	7.53	3.48	5	48.93
Number of blockholders	3.04	3	1.57	1	10
Number of long-term blockholders	0.89	1	0.96	0	4
Number of local blockholders	0.38	0	0.70	0	4
Number of inside blockholders	0.14	0	0.40	0	3
Number of outside blockholders	2.90	3	1.56	0	10
Number of market-driven blockholders	2.50	2	1.48	0	9
Number of politically driven blockholders	0.01	0	0.10	0	1
Number of socially driven blockholders	0.21	0	0.51	0	3
Number of multilateral blockholders	0.33	0	0.57	0	4

Control Variables

Size: Firm size is a frequently used control variable in earnings management studies (Dechow & Dichev, 2002; Klein, 2002; Chung et al., 2002; Mitra & Cready, 2005; Bradbury, Mak, & Tan, 2006; Cheng & Reitanga, 2009; Lee & Masulis, 2009; Guthrie & Sokolowsky, 2010; Dou et al., 2016).

Lee and Masulis (2009) assert that large companies are more likely to be followed by analysts, media, and investors. Thus, the information asymmetry between managers and shareholders is likely to be less than smaller companies. Furthermore, Dechow and Dichev (2002) find a positive relationship between firm size and accrual quality. Following previous literature, we use natural logarithm of total assets to proxy for firm size, and we expect to observe a negative relationship between our reverse measure of accrual quality and firm size.

ROA: Guthrie and Sokolowsky (2010) and Dou et al. (2016) find return on assets (ROA) to be a significant control variable because it proxies for firm operating performance and that is related to accrual by definition. ROA equals net income divided by total assets. Consistent with prior literature, we expect to observe a negative relationship between ROA and our reverse measure of accrual quality.

Growth: Core (2001) asserts that firms with high growth potential have higher information asymmetry. Bradbury et al. (2006) posits that high-growth firms will adopt mechanisms to mitigate the agency problem. Klein (2002), Gabrielsen, Gramlich and Plenborg (2002), Bradbury et al. (2006), and Zhong, Gribbin and Zheng (2007) use the ratio of market value of equity to book value of equity as a proxy for growth variable. Following them, we use the same ratio to proxy for growth and expect to observe a negative relationship between growth and our reverse measure of accrual quality.

Leverage: Leverage is another control variable that is commonly used in research that focuses on earnings management (Chung et al., 2002; Rajgopal, Venkatachalam, & Jiambalvo, 2002; Cheng & Reitanga, 2009; Guthrie & Sokolowsky, 2010; Dou et al., 2016).

The more the firms are leveraged, the greater the managers' incentives to undertake riskier projects (Lee & Masulis, 2009) and to make income-increasing discretionary accruals (DeFond & Jiambalvo, 1994) will be.

Following the literature, we calculate leverage by dividing total debt by book value of total assets and expect to observe a positive relationship between leverage and our reverse measure of accrual quality.

Auditor Choice: Auditor choice is another important factor to control for. Dechow et al. (1996) investigate the causes and consequences of earnings manipulation and assert that independence and quality of the outside auditor will impact the likelihood that earnings manipulation is detected. Thus, we use a binary dummy variable that takes the value of 1 if the firm works with one of the big four auditors: Ernst & Young, PricewaterhouseCoopers, Deloitte & Touche Tohmatsu, and KPMG, and 0 otherwise. We expect that working with a big four auditor will mitigate the likelihood of earnings management.

RESEARCH METHODS

Univariate Analysis

As the first step, we calculate earnings quality for each firm-year observation using the FDD model. Then we investigate whether the existence of blockholders has a significant impact on earnings quality. Following Dechow et al. (1996), we perform a t-test for the difference in means and a Wilcoxon signed-rank test for the difference in medians.

Table 2 presents mean and median values for different incentive groups. Panel A compares mean and median values for firms with market-driven blockholders and firms with no market-driven blockholders. Panel B compares mean and median values for firms with politically driven blockholders and firms with no politically driven blockholders. Panel C compares mean and median values for firms with socially driven blockholders and firms with no socially driven blockholders. Panel D compares mean and median values for firms with multilateral blockholders and firms with no multilateral blockholders.

Overall, firms with market-driven blockholders and multilateral blockholders seem to have significantly higher values, which translates to lower accrual quality and a higher likelihood of earnings management activities.

TABLE 2
EARNINGS QUALITY AND THE EXISTENCE OF BLOCKHOLDERS (FDD MODEL)

This table presents earnings quality for different incentive groups. Following Ferreira and Laux (2016), we use an inverse measure of earnings quality. We perform a t-test for the difference in means and a Wilcoxon signed-rank test for the difference in medians. Panel A compares mean and median values for firms with market-driven blockholders (BH) and firms with no market-driven blockholders. Panel B compares mean and median values for firms with politically driven blockholders and firms with no politically driven blockholders. Panel C compares mean and median values for firms with socially driven blockholders and firms with no socially driven blockholders. Panel D compares mean and median values for firms with multilateral blockholders and firms with no multilateral blockholders. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively.

Incentive Classification	Mean	t	Median	Z
Panel A. Market-driven blockholders				
No market-driven BH	0.0054	-1.42	0.0020	-1.81*
Market-driven BH	0.0087		0.0034	
Difference	-0.0033		-0.0014	
Panel B. Politically driven blockholders				
No politically driven BH	0.0086	0.70	0.0033	0.3
Politically driven BH	0.0053		0.0034	
Difference	0.0033		-0.0001	
Panel C. Socially driven blockholders				
No socially driven BH	0.0088	1.10	0.0032	0.52
Socially driven BH	0.0074		0.0038	
Difference	0.0014		-0.0006	
Panel D. Multilateral blockholders				
No multilateral BH	0.0079	-2.19**	0.0033	1.01
Multilateral BH	0.0102		0.0034	
Difference	-0.0023		-0.0001	

Multivariate Analysis

To analyze the relationship between blockholder heterogeneity and financial reporting quality, we use the ordinary least squares (OLS) regression method and regress FDD on blockholder characteristics and firm characteristics variables. The specifications we use are variants of the base model provided below.

FDD = f(Majority Inside Dummy, Number of Local Blockholders,
Number of Long-Term Blockholders, Number of Market-Driven
Blockholders, Number of Politically Driven Blockholders,
Number of Socially Driven Blockholders, Number of Multilateral
Blockholders, Average Percentage of Shares Held by Blockholders,
ln(Size), ROA, Growth, Leverage, Big 4 Auditor Dummy) (1)

We perform clustering at industry level to obtain robust standard errors that allow for heteroskedasticity and industry-fixed effects (Ferreira & Laux, 2016).

Table 3 presents the results for the regression analyses. Dependent variable is the reverse measure of accrual quality calculated using the FDD model. Models 1 to 5 are different specifications of the baseline regression model. Model 1 includes all variables in the baseline model. Model 2 specifically tests the impact of market-driven blockholders on FDD. Model 3 specifically tests the impact of politically driven blockholders on FDD. Model 4 specifically tests the impact of socially driven blockholders on FDD. Model 5 specifically tests the impact of multilateral blockholders on FDD.

Looking at the table, blockholders driven by market forces and multilateral blockholders seem to have a significant negative impact on accrual quality, meaning the firm is more likely to engage in earnings management. In model 4, socially driven blockholders seem to have a significant impact on accrual quality, and the negative sign of this relationship is consistent with our expectations.

TABLE 3
REGRESSION ANALYSES

This table presents the results of the regression analyses. Dependent variable is the reverse measure of accrual quality calculated using the FDD model following Ferreira and Laux (2016). We use the ordinary least squares (OLS) regression method. We also use robust standard errors corrected for clustering at industry level to allow for heteroskedasticity and industry-fixed effects. Models 1-5 are different specifications of the baseline regression model. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively.

		Model 1		Model 2		Model 3		Model 4		Model 5	
Parameter	**Exp. Sign**	**Est.**	**t**	**Est.**	**t**	**Est.**	**t**	**Est.**	**t**	**Est.**	**t**
Intercept		0.0300	5.57***	0.0305	5.69***	0.0336	6.39***	0.0337	6.52***	0.0332	6.29***
Majority inside	+	0.0029	1.00	0.0020	0.71	0.0014	0.49	0.0025	0.88	0.0018	0.63
No. of local BH	-	0.0002	0.22	0.0000	-0.03	-0.0001	-0.15	0.0006	0.70	-0.0002	-0.27
No. of long-term BH	-	-0.0007	-1.33	-0.0007	-1.44	-0.0004	-0.98	-0.0002	-0.48	-0.0006	-1.28
No. of market-driven BH	?	0.0006	1.80*	0.0006	1.92*						
No. of politically driven BH	?	-0.0009	-0.52			-0.0009	-0.51				
No. of socially driven BH	-	-0.0009	-0.93					-0.0019	-2.23**		
No. of multilateral BH	+	0.0021	2.37**							0.0021	2.35**
ln(size)	-	-0.0015	-6.04***	-0.0014	-5.77***	-0.0017	-6.81***	-0.0017	-6.90***	-0.0017	-7.08***
ROA	-	-0.0062	-1.31	-0.0080	-1.70*	-0.0088	-1.77*	-0.0088	-1.78*	-0.0072	-1.45
Growth	-	0.0000	-0.05	0.0000	-0.12	0.0000	-0.24	0.0000	-0.20	0.0000	-0.10
Leverage	+	-0.0101	-2.94***	-0.0095	-2.85***	-0.0086	-2.67***	-0.0087	-2.74***	-0.0093	-2.87***
Average shares held by BH	-	-0.0001	-1.20	-0.0001	-1.62	-0.0002	-2.03**	-0.0002	-1.79*	-0.0002	-1.80*
Big four dummy	-	-0.0065	-1.32	-0.0068	-1.37	-0.0066	-1.32	-0.0069	-1.39	-0.0062	-1.24
R-square		0.0570		0.0496		0.0472		0.0496		0.0533	

Taking our univariate and multivariate results together, accrual quality is lower for firms with market-driven and multilateral blockholders. Camara (2005) explains that market forces reward actions with money. He asserts that market-driven investors are motivated principally by financial gain. Thus, we might expect them to put greater pressure on the managers to increase earnings, which would in turn increase the likelihood of earnings management. In the case of multilateral investors, Camara (2005) explains that these investors have a variety of financial relationships with the firm. He asserts that if the payoffs associated with these relationships are different from those associated with equity ownership, these investors will sometimes not want to maximize shareholder value.

ROBUSTNESS TESTS

To test the robustness of our results, we calculate accrual quality using the DD and MDD models as well.

Table 4 presents mean and median earnings quality calculated using the DD model for different incentive groups. Table 5 presents mean and median earnings quality calculated using the MDD model for different incentive groups. In both tables, Panel A compares mean and median values for firms with market-driven blockholders and firms with no market-driven blockholders. Panel B compares mean and median values for firms with politically driven blockholders and firms with no politically driven blockholders. Panel C compares mean and median values for firms with socially driven blockholders and firms with no socially driven blockholders. Panel D compares mean and median values for firms with multilateral blockholders and firms with no multilateral blockholders.

The results in Table 4, show that accrual quality continues to be worse for market-driven blockholders and multilateral blockholders. However, the results for the market-driven blockholders are not significant. Looking at Table 5, the results are consistent with Table 2. Firms with market-driven blockholders and multilateral blockholders seem to have worse accrual quality.

TABLE 4
EARNINGS QUALITY AND THE EXISTENCE OF BLOCKHOLDERS (DD MODEL)

This table presents earnings quality calculated using the DD Model for different incentive groups. We perform a t-test for the difference in means and a Wilcoxon signed-rank test for the difference in medians. Panel A compares mean and median values for firms with market-driven blockholders and firms with no market-driven blockholders. Panel B compares mean and median values for firms with politically driven blockholders and firms with no politically driven blockholders. Panel C compares mean and median values for firms with socially driven blockholders and firms with no socially driven blockholders. Panel D compares mean and median values for firms with multilateral blockholders and firms with no multilateral blockholders. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively.

Incentive Classification	**Mean**	**t**	**Median**	**Z**
Panel A. Market-driven blockholders				
No market-driven BH	0.0061	-1.38	0.0019	-1.51
Market-driven BH	0.0100		0.0029	
Difference	-0.0039		-0.0010	
Panel B. Politically driven blockholders				
No politically driven BH	0.0099	0.69	0.0028	0.83
Politically driven BH	0.0058		0.0048	
Difference	0.0041		-0.0020	
Panel C. Socially driven blockholders				
No socially driven BH	0.0102	1.30	0.0027	1.04
Socially driven BH	0.0081		0.0035	
Difference	0.0021		-0.0008	
Panel D. Multilateral blockholders				
No multilateral BH	0.0091	-2.06**	0.0028	1.16
Multilateral BH	0.0118		0.0032	
Difference	-0.0027		-0.0004	

TABLE 5
EARNINGS QUALITY AND THE EXISTENCE OF BLOCKHOLDERS (MDD MODEL)

This table presents earnings quality calculated using the MDD Model for different incentive groups. We perform a t-test for the difference in means and a Wilcoxon signed-rank test for the difference in medians. Panel A compares mean and median values for firms with market-driven blockholders and firms with no market-driven blockholders. Panel B compares mean and median values for firms with politically driven blockholders and firms with no politically driven blockholders. Panel C compares mean and median values for firms with socially driven blockholders and firms with no socially driven blockholders. Panel D compares mean and median values for firms with multilateral blockholders and firms with no multilateral blockholders. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively.

Incentive Classification	**Mean**	**t**	**Median**	**Z**
Panel A. Market-driven blockholders				
No market-driven BH	0.0056	-1.46	0.0016	-1.79*
Market-driven BH	0.0094		0.0029	
Difference	-0.0038		-0.0013	
Panel B. Politically driven blockholders				
No politically driven BH	0.0093	0.64	0.0029	0.76
Politically driven BH	0.0058		0.0047	
Difference	0.0035		-0.0018	
Panel C. Socially driven blockholders				
No socially driven BH	0.0095	1.15	0.0027	0.97
Socially driven BH	0.0079		0.0037	
Difference	0.0016		-0.0010	
Panel D. Multilateral blockholders				
No multilateral BH	0.0085	-2.31**	0.0029	1.14
Multilateral BH	0.0112		0.0030	
Difference	-0.0027		-0.0001	

Tables 6 and 7 present the results for the repeated regression analyses using the reverse measures of accrual quality calculated using the DD and MDD models, respectively. Models 1 to 5 are different specifications of the baseline regression model. Model 1 includes all variables in the baseline model. Model 2 specifically tests the impact of market-driven blockholders on the dependent variable. Model 3 specifically tests the impact of politically driven blockholders on the dependent variable. Model 4 specifically tests the impact of socially driven blockholders on the dependent variable. Model 5 specifically tests the impact of multilateral blockholders on the dependent variable.

TABLE 6
ROBUSTNESS REGRESSION ANALYSES (DD MODEL)

This table presents the results of the regression analyses. The dependent variable is the reverse measure of accrual quality calculated using the DD model following Ferreira and Laux (2016). We use the ordinary least squares (OLS) regression method. We also use robust standard errors corrected for clustering at industry level to allow for heteroskedasticity and industry-fixed effects. Models 1-5 are different specifications of the baseline regression model. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively.

		Model 1		**Model 2**		**Model 3**		**Model 4**		**Model 5**	
Parameter	**Exp. Sign**	**Est.**	**t**	**Est.**	**t**	**Est.**	**t**	**Est.**	**t**	**Est.**	**t**
Intercept		0.0377	5.71***	0.0388	5.95***	0.0418	6.58***	0.0419	6.63***	0.0413	6.46***
Majority inside	+	0.0032	0.97	0.0025	0.79	0.0019	0.59	0.0027	0.85	0.0025	0.74
No. of local BH	-	-0.0002	-0.26	-0.0002	-0.23	-0.0003	-0.33	0.0002	0.24	-0.0004	-0.46
No. of long-term BH	-	-0.0015	-2.45**	-0.0014	-2.39**	-0.0012	-2.09**	-0.0010	-1.74*	-0.0013	-2.43**
No. of market-driven BH	?	0.0007	1.57	0.0006	1.46						
No. of politically driven BH	?	-0.0015	-0.74			-0.0014	-0.75				
No. of socially driven BH	-	-0.0002	-0.18					-0.0014	-1.33		
No. of multilateral BH	+	0.0027	2.46**							0.0026	2.39**
ln(size)	-	-0.0023	-6.59***	-0.0022	-6.44***	-0.0024	-7.36***	-0.0024	-7.41***	-0.0025	-7.59***
ROA	-	-0.0047	-0.70	-0.0070	-1.09	-0.0078	-1.18	-0.0078	-1.19	-0.0058	-0.87
Growth	-	0.0000	-0.49	0.0000	-0.62	0.0000	-0.75	0.0000	-0.71	0.0000	-0.54
Leverage	+	-0.0085	-2.14**	-0.0077	-1.99**	-0.0068	-1.82*	-0.0070	-1.88*	-0.0077	-2.05**
Average shares held by BH	-	-0.0002	-1.50	-0.0002	-1.87*	-0.0002	-2.16**	-0.0002	-2.04**	-0.0002	-1.92*
Big four dummy	-	-0.0063	-1.12	-0.0068	-1.21	-0.0065	-1.17	-0.0067	-1.21	-0.0061	-1.07
R-square		0.0565		0.0498		0.0484		0.0492		0.0543	

TABLE 7
ROBUSTNESS REGRESSION ANALYSES (MDD MODEL)

This table presents the results of the regression analyses. The dependent variable is the reverse measure of accrual quality calculated using the MDD model following Ferreira and Laux (2016). We use the ordinary least squares (OLS) regression method. We also use robust standard errors corrected for clustering at industry level to allow for heteroskedasticity and industry-fixed effects. Models 1-5 are different specifications of the baseline regression model. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively.

		Model 1		**Model 2**		**Model 3**		**Model 4**		**Model 5**	
Parameter	**Exp. Sign**	**Est.**	**t**	**Est.**	**t**	**Est.**	**t**	**Est.**	**t**	**Est.**	**t**
Intercept		0.0313	5.40***	0.0325	5.68***	0.0359	6.44***	0.0360	6.50***	0.0353	6.31***
Majority inside	+	0.0029	0.93	0.0023	0.76	0.0016	0.53	0.0024	0.80	0.0022	0.69
No. of local BH	-	-0.0005	-0.51	-0.0004	-0.46	-0.0005	-0.57	0.0000	0.03	-0.0006	-0.71
No. of long-term BH	-	-0.0008	-1.46	-0.0007	-1.26	-0.0004	-0.83	-0.0003	-0.51	-0.0006	-1.16
No. of market-driven BH	?	0.0007	1.99**	0.0006	1.83*						
No. of politically driven BH	?	-0.0013	-0.68			-0.0013	-0.72				
No. of socially driven BH	-	-0.0001	-0.09					-0.0014	-1.39		
No. of multilateral BH	+	0.0028	2.63***							0.0026	2.53**
ln(size)	-	-0.0019	-6.01***	-0.0018	-5.86***	-0.0021	-6.88***	-0.0021	-6.93***	-0.0022	-7.11***
ROA	-	-0.0037	-0.68	-0.0061	-1.15	-0.0069	-1.28	-0.0070	-1.29	-0.0049	-0.90
Growth	-	0.0000	-0.14	0.0000	-0.26	0.0000	-0.42	0.0000	-0.36	0.0000	-0.21
Leverage	+	-0.0093	-2.58**	-0.0084	-2.40**	-0.0074	-2.18**	-0.0076	-2.25**	-0.0083	-2.44**
Average shares held by BHs	-	-0.0001	-1.27	-0.0002	-1.66*	-0.0002	-2.01**	-0.0002	-1.89*	-0.0002	-1.76*
Big four dummy	-	-0.0045	-0.86	-0.0050	-0.96	-0.0047	-0.91	-0.0049	-0.95	-0.0042	-0.81
R-square		0.0535		0.0453		0.0432		0.0442		0.0504	

In Table 6, multilateral blockholders continue to negatively impact accrual quality. In Table 7, both market-driven and multilateral blockholders continue to negatively impact accrual quality, which is consistent with our main regression analysis.

CONCLUSION

Blockholders are seen as effective monitoring mechanisms, and their existence mitigates the agency problem between managers and shareholders. In the literature, blockholders have been associated with a lower likelihood of earnings management (Dechow et al., 1996; Chung et al., 2002; Cheng & Reitenga, 2009). However, most of the studies assume that blockholders are a homogeneous group. Instead, blockholders are a heterogeneous group that varies in its beliefs, skills, and preferences (Cronqvist & Fahlenbrach, 2009). To date, few studies acknowledge their heterogeneity, and a significant part of blockholder heterogeneity still remains unexplained (Dou et al., 2016).

This study is an attempt to understand the unexplained proportion of blockholder heterogeneity and to analyze blockholders' impact on earnings quality.

We find that accrual quality is lower for firms with market-driven and multilateral blockholders. As Camara (2005) explained, market forces reward actions with money. The principal motivation for market-driven investors is financial gain. Thus, we might expect market-driven blockholders to put greater pressure on managers to increase earnings. This would in turn decrease earnings quality. On the other hand, multilateral investors have a variety of financial relationships with the firm. When the payoffs associated with these relationships differ from those associated with equity ownership, these investors might deviate from maximizing shareholder value (Camara, 2005), hence lowering the earnings quality.

ENDNOTES

1. Source: http://www.sec.gov/litigation/litreleases/lr17435.htm
2. Source: http://www.sec.gov/news/speech/speecharchive/1998/spch220.txt
3. We follow the methodology described in detail in Ferreira and Laux (2016) to calculate accrual quality using the DD model. Our MDD and FDD calculations follow the same approach. Namely, to calculate the standard deviation of a given firm-year observation's residuals, we go back five years and take the standard deviation of the five most recent residuals prior to the observation year.
4. Source: http://www.wsj.com/articles/SB10142421186189295 60

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