BLOCK OWNERSHIP AND ACCOUNTING CONSERVATISM

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Abstract

This study examines the effect of outside blockholders' ownership on conditional accounting conservatism. I find that conditional conservatism is positively associated with the ownership of outside blockholders, suggesting that conditional conservatism is a useful governance tool for outside blockholders to fulfill their monitoring role. In addition, conditional conservatism appears to be positively associated with the average ownership of outside blockholders, consistent with the view that diluting ownership among more outside blockholders decreases the monitoring strength of outside blockholders and their demand for conditional conservatism. Additional analysis suggests that outside blockholders' ownership leads to conditional conservatism, but not vice versa. Overall, this study highlights the importance of considering blockholder characteristics in research on accounting conservatism and corporate governance.

Keywords: Accounting Conservatism, Asymmetric timeliness, Blockholder, Ownership

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1. Introduction

This paper examines the effect of outside blockholders' ownership on conditional conservatism. Consistent with the literature (e.g, Dlugosz et al. 2006), a blockholder is defined as a person or entity whose beneficiary ownership is at least 5% of the total number of outstanding shares. Prior research (e.g., Shleifer and Vishny 1986, 1997) suggests that blockholders play an important monitoring role in corporate governance and are a potential solution to the agency problem resulting from the separation of ownership and control.

The literature on accounting conservatism suggests that conditional accounting conservatism is a potentially useful governance tool for shareholders to monitor managerial behaviors. Ball (2001) and Watts (2003) argue that shareholders demand accounting conservatism because conservatism mitigates agency conflicts by facilitating efficient contracting and monitoring. Consistent with this argument, prior studies find that conditional conservatism plays an important governance role in contracting and monitoring by addressing agency problems (e.g., Ramalingegowda and Yu 2012; Lafond and Roychowdhury 2008) and reducing information asymmetry (Lafond and Watts 2008).

Given the monitoring role of large shareholders and the role of conditional accounting conservatism in assisting shareholders to fulfill their monitoring role, an interesting question is whether large shareholders demand conservative financial reporting. Prior studies have focused on investigating the effects of the board of directors (Ahmed and Duellman 2007), institutional investors (Ramalingegowda and Yu 2012), and other corporate governance mechanisms (Lara et al. 2009) on accounting conservatism, but have largely ignored the influence of blockholders on accounting conservatism.

I differentiate between outside blockholders and inside blockholders who are officers, directors, or their affiliates. Prior studies suggest two opposite views about the role of inside blockholders in corporate governance. On one hand, the interest-alignment view (e.g., Jensen and Meckling 1976) suggests that, as inside ownership increases, the interests of insiders are more aligned with those of shareholders, which in turn reduces agency conflicts and benefit shareholders. On the other hand, the entrenchment view (e.g., Morck et al 1988; Shleifer and Vishny 1997) suggest that inside blockholders may expropriate minority shareholders and indulge in non-value-maximizing activities, as their ownership increases.

Because of the contradictory roles of inside blockholders in corporate governance, it is difficult to predict and interpret the relationship between inside blockholders and accounting conservatism. Therefore, this study focuses on examining the effect of outside blockholders on conditional conservatism. Compared to inside blockholders, a distinct feature of outside blockholders is that outside blockholders are more

likely to represent the interests of shareholders and are unlikely to get entrenched and expropriate the minority shareholders (Demsetz and Villalonga 2001).

Using the Basu measure (Basu 1997) and the accrual-based conservatism measure (Ball and Shivakumar 2005) as the proxies for conditional conservatism, I find that conditional conservatism is positively associated with the ownership of outside blockholders, suggesting that a higher level of ownership by outside blockholders increases their incentives and abilities to monitor managers, which in turn increases their demand for conditional conservatism. In addition, conditional conservatism appears to be positively associated with the average ownership of outside blockholders, consistent with the view that diluting ownership among more outside blockholders decreases the monitoring strength of outside blockholders and their demand for conditional conservatism. My results are also robust to using earnings skewness (e.g., Zhang 2008) and the conservatism ratio (Callen et al. 2010) as alternative measures of conditional conservatism. Additional analysis suggests that outside blockholders' ownership leads to conditional conservatism, but not vice versa.

My paper makes the following contributions. First, this study extends prior research on shareholders' demand for conditional conservatism (Lafond and Roychowdhury 2008; Lafond and Watts 2008; Ramalingegowda and Yu 2012) by suggesting that outside blockholders are an important class of shareholders that demand conservative financial reporting. This study also complements the literature on accounting conservatism and corporate governance. Prior research (e.g., Ahmed and Duellman 2007; Garcia Lara et al. 2009) has largely ignored the role of blockholders, especially outside blockholders, in enhancing accounting information quality. My results suggest that the outside blockholders' ownership can explain conditional conservatism above and beyond other corporate governance mechanisms. Therefore, future research on accounting conservatism should take into account the effect of outside blockholders.

Second, this study also contributes to the literature on blockholders. Although a body of theoretical papers posits a monitoring role of large blockholders, relatively few empirical studies provide evidence consistent with firm policy being affected outside blockholders. My results suggest that outside blockholders affect firms' financial reporting policy by demanding conservative financial reporting. In contrast, this study finds no evidence that blockholders who are outside directors affect accounting conservatism in all the specifications. The lack of association between conditional conservatism and the ownership by blockholders who are outside directors suggests that the entrenchment effect may offset the interest alignment-effect for outside directors, as their ownership increases.[12]

In addition, this paper also provides evidence on how the average ownership of blockholders may affect their monitoring strength. The literature (e.g., Shleifer and Vishny 1986; Burkart et al. 1997) suggests that duplication and free riding among blockholders require the total ownership of multiple blockholders to be greater than that of a single blockholder for the same level of supervision and monitoring. The positive association between the average ownership and conditional conservatism documented in this study is thus consistent with the spirit in traditional blockholder models that a single blockholder is desirable, because it reduces free-rider problem and maximizes the incentives to intervene.

The rest of my paper is organized as follows. Section 2 reviews previous literature and develops the hypothesis. Section 3 outlines research methodology. The sample is described in Section 4. Section 5 reports main empirical results. Additional analyses are presented in Section 6. Section 7 summarizes the paper and provides concluding remarks.

2. Literature review and hypothesis development

2.1. The monitoring role of outside blockholders

The literature (e.g., Shleifer and Vishny 1986, 1997) suggests that outside blockholders, who do not serve as officers or directors, are an important external governance mechanism to monitor managers. Compared to small shareholders, outside blockholders not only benefit more from monitoring managers because of their higher stake in the firm, but also have enough voting rights to affect managerial decisions or even replace incumbent management through a proxy fight or a takeover. Outside blockholders thus address agency conflicts in that they have both incentives and abilities to monitor managers.

Prior research generally provides evidence consistent with the monitoring role of outside blockholders (see Wang et al. 2011 for a survey). Mehran (1995) finds that equity-based compensation is inversely related to the shares held by outside blockholders, suggesting that monitoring by outside blockholders reduces the demand for equity-based compensation. Several studies find that outside blockholder may increase firm value (Lins 2003; Denis et al. 1997a) and reduce moral hazard problems (Kim 2010; Denis et al. 1997b). A few other studies

[12] The literature generally does not differentiate between outside directors who are blockholders and those who are not, and provides mixed evidence on the association between outside directors' ownership and accounting conservatism. In particular, Ahmed and Duellman (2007) document a positive association between outside directors' ownership and accounting conservatism, while Lafond and Roychowdhary (2008) find no evidence of such a relation.

(e.g., Fidrmuc et al. 2006; Pawlina and Renneboog 2005) provide evidence that the monitoring activities of outside blockholders are likely to benefit all shareholders and reduce information asymmetry between managers and shareholders.

2.2. Blockholders' demand for conditional conservatism

The literature suggests that shareholders demand conservatism because conservatism increases contracting efficiency and reduces agency conflicts. Conservatism limits managers' incentives and abilities to hide losses and invest in projects with negative net present value (NPV) by timely recognition of losses and triggering shareholders' investigation (Ball 2001; Watts 2003). Such investigation can lead to management turnover and elimination of negative NPV projects. Conservatism may also reduce managers' ability to overstate earnings and thus avoid excess compensation payments to mangagers (Watts 2003).

More recent research differentiates between conditional and unconditional conservatism. The literature suggests that conditional conservatism, rather than unconditional conservatism, can increase contracting efficiency, mitigate agency problems, and reduce information asymmetry. In particular, Ball and Shivakumar (2005) argue that conditional conservatism increases the efficiency of compensation contracting and corporate governance by increasing managers' incentives to limit losses and abandon negative NPV projects. In contrast, unconditional conservatism may reduce contracting efficiency if the magnitude of bias is unknown. Similarly, Qiang (2007) and Lara et al. (2009) find that contracting induces only conditional conservatism, but not unconditional conservatism. Furthermore, Lafond and Watts (2008) suggest that shareholders demand conditional conservatism to reduce information asymmetry between managers and shareholders and related deadweight losses.

The above discussion suggests that conditional conservatism is a useful governance tool for outside blockholders to fulfill their role in monitoring managers. Compared to small shareholders, outside blockholders are more likely to demand conservative financial reporting. First, the literature (e.g., Barclay and Holderness 1991; Rubin 2007) suggests that large shareholders should be considered as sophisticated investors. They have an advantage in gathering and processing information relative to small investors and are more likely to appreciate and enjoy benefits from conservatism (Ramalingegowda and Yu 2012). Second, outside blockholders also have stronger incentives and abilities to monitor managers and impose conditional conservatism, because of their large stakes in the firm (e.g., Shleifer and Vishny 1986, 1997).

A natural question that follows is how outside blockholders affect conservatism given that they do not sit on the board. Cronqvist and Fahlenbrach (2009) suggest a variety of ways that outside blockholders may influence firm policy. In particular, blockholders can impose conservative financial reporting directly through their voting rights, proxy contests, and shareholder proposals, or indirectly through informal negotiations and communications with incumbent managers. Some recent research (e.g., Admati and Pfleiderer 2009; Edmans and Manso 2011) suggests that blockholders can also exert governance and reduce agency problems by their informed trading, even if they cannot influence firm operations directly. Furthermore, prior research finds that corporate control events, such as a new outside blockholder, lead to corporate refocusing activities (Berger and Ofek 1999), which in turn leads to an increase in conditional conservatism (Mak et al. 2011), consistent with the view that outside blockholders demand more conservative financial reporting.

Given the monitoring role of outside blockholders and their demand for conditional conservatism, I predict that conditional conservatism should be positively associated with the monitoring strength of outside blockholders. As their ownership increases, outside blockholders have stronger incentives and abilities to monitor managers and impose conditional conservatism (Shleifer and Vishny 1997), and are more likely to appreciate the benefits from conditional conservatism (Ramalingegowda and Yu 2012), suggesting a positive association between outside blockholders' ownership and conditional conservatism.

Bushman et al. (2004) find that firms with lower earnings timeliness adopt stronger corporate governance mechanisms. To the extent that conservatism and the monitoring of outside blockholders may be substitutes, conditional conservatism could be negatively associated with outside blockholders' ownership. While Lara et al. (2009) suggest that this substitution effect is relatively weak compared to the positive association between conservatism and corporate governance strength, my empirical analyses employ two-tailed tests to allow for the substitute relationship between conservatism and outside blockholders' ownership.

3. Empirical proxies and research methodology

3.1. Measures of the ownership of blockholders

Information about blockholders is obtained from the database constructed by Dlugosz et al. (2006) (DFG hereafter). DFG correct the data problems in Compact Disclosure that result from ownership overlaps or failure to adjust for preferred stock. Blockholders are

classified into five categories: (1) officers, (2) non-officer directors, (3) affiliated blockholders, (4) ESOP-related blockholders, and (5) outside blockholders, who are neither officers nor directors of the company. Category (1) includes all officers, even if they are also directors. Category (3) includes any person or entity, whose voting outcome is partially influenced, but not completely controlled, by an officer or director of the company. Category (4) refers to blockholders who hold shares through employee share ownership plans. SUMOFF, SUMDIR, SUMAFLIN, SUMESOP, and SUMOUT represent the total ownership by blockholders in category 1 through 5, respectively.

3.2. Proxies for Conditional Conservatism

My first measure is based on the following Basu's (1997) earnings return model, which uses the asymmetric timeliness of earnings to positive returns (good news) vs. negative returns (bad news) to measure conditional conservatism.

$$NI_t = \beta_0+\beta_1 D_t+\beta_2 R_t+\beta_3 D_t*R_t+\varepsilon_t \quad (1)$$

NI_t is net income before extraordinary items, deflated by the market value of equity at the beginning of year t. R_t is the buy-and-hold return over the fiscal year (I also use annual buy and hold return starting 3 months after the end of the previous fiscal year as a robustness check. The results are qualitatively similar to those reported in Table 4 and 6). D_t is a dummy variable equal to 1 if R_t is less than zero, zero otherwise. β_3 should be positive in the presence of conditional conservatism. Prior literature (e.g., Patatoukas and Thomas 2011) suggests that the Basu measure is unreliable because of substantial biases attributable to the information environment, deflated loss, and return variances. I thus control for fixed firm effects to alleviate the biases in the Basu measure, as recommended by Ball et al. (2011).

My second measure is an accrual-based measure of conditional conservatism. Ball and Shivakumar (2005) suggest that the negative correlation between total accruals and cash flows should be less for negative cash flows, because losses are more likely to be recognized as accruals in the periods with negative cash flows, while gains are more likely to be accounted for on a cash basis. Therefore, the asymmetric correlation between total accruals and cash flows can be used to describe the asymmetric timeliness of gain vs. loss recognition.

$$ACC_t=\beta_0+\beta_1 DCFO_t+\beta_2 CFO_t+\beta_3 DCFO_t*CFO_t+\varepsilon_t \quad (2)$$

ACC_t denotes total accruals, defined as income before extraordinary items minus cash flow from operations (CFO_t), where both variables are scaled by average total assets. $DCFO_t$ is a dummy variable equal to 1 if CFO_t is less than zero, zero otherwise. This measure does not rely on market returns and thus reduces the biases associated with information environment, market inefficiency, and return variances (Lara et al. 2009). A more positive coefficient on DCFO*CFO suggests higher conditional conservatism.

3.3. Investment opportunity set

Lafond and Roychowdhury (2008) suggest that both ownership and conditional conservatism may be affected by the investment opportunity set (hereafter IOS). Therefore, it is important to control for the effects of the IOS on conditional conservatism. Prior literature (e.g., Himmelberg et al. 1999; Demsetz and Villalonga 2001) suggests that the following model can be used to describe the association between ownership structure and the IOS.

$$OWN_t = \beta_0+\beta_1 LMTB_t++\beta_1 LSIZE_t+\beta_3 LLEV_t+\beta_4 LN(S)_t+\beta_5 LN(S)^2{}_t+\beta_6 SE_t+\beta_7 BETA_t+\beta_8 SEDUM_t+\beta_9 AD_t+\beta_{10} ADUM_t+\beta_{11} RD_t+\beta_{12} RDUM_t+\beta_{13} FIX_t+\beta_{14} FDUM_t+\beta_{15} OM_t+\beta_{16} INVI_t+\varepsilon_t \quad (3)$$

OWN represents the level of block ownership. LMTB and LLEV are included to measure the effects of the market to book ratio and financial leverage on ownership structure (Demsetz and Villalonga 2001; Lafond and Roychowdhary 2008). LMTB is the market-to-book ratio at the beginning of the fiscal year. LLEV is total debt divided by total assets, measured at the beginning of the fiscal year (Demsetz and Villalonga (2001) and Lafond and Roychowdhary (2008) find a negative association between ownership concentration and financial leverage). LSIZE is the natural log of the market value of equity at the beginning of the fiscal year. LN(S), defined as the natural log of annual sales, and $LN(S)^2$, the square of LN(S), are include to capture the non-linear effects of firm size and growth opportunity (The relationship between firm size and ownership concentration is not clear ex ante. On the one hand, for a given dollar amount of investment, the larger the firm, the less ownership a blockholder has. On the other hand, larger firms may attract wealthier blockholders, indicating a positive association between firm size and block ownership. I require at least 25 data points to estimate SE and BETA. If they are missing, then they are set to zero).

SE is firm-specific risk, while Beta captures market risk. Demsetz and Villalonga (2001) suggest a positive association between block ownership and firm risk, while Himmelberg et al. (1999) expect a negative association between managerial ownership and firm risk due to managerial risk aversion. SE (Beta) is calculated as the standard error of the residuals (slope coefficient) from a regression of monthly stock returns on value-weighted market

returns including dividends distribution (It requires at least 25 data points to estimate SE and BETA. If they are missing, then they are set to zero). SEDUM is a dummy variable equal to 1 if data used to estimate SE and BETA are available, and zero otherwise.

AD and RD (FIX) measure(s) the effect of soft (hard) capital on managerial discretion and block ownership. Himmelberg et al. (1999) argue that hard capital can be easily monitored, while soft capital is difficult to monitor. Therefore, firms with higher soft (hard) capital will have a higher (lower) optimal level of block ownership. AD (RD) is annual advertising expense (R&D expense) deflated by annual net sales. ADUM (RDUM) is a dummy variable equal to 1 if AD (RD) is not equal to zero, and zero otherwise. FIX is defined as fixed assets deflated by annual net sales. FDUM is a dummy variable equal to 1 if FIX is not equal to zero, and zero otherwise.

OM and INVI measure the effects of free cash flows and investment intensity, respectively, on ownership concentration. OM is operating income before depreciation as a percentage of sales, and INVI is the ratio of capital expenditures to total assets. OM and INVI are expected to be positively associated with block ownership, since firms with higher investment intensity and free cash flows have more discretionary spending and thus demand higher block ownership.

3.4. Empirical models

The following model is used to investigate the effect of outside blockholders' ownership on asymmetric timeliness.

$$NI_t=\beta_0+\beta_1D_t+\beta_2R_t+\beta_3D_t*R_t+\beta_4OWNOUT_t+\beta_5OWNOUT_t*D_t+\beta_6OWNOUT_t*R_t+\beta_7OWNOUT_t*D_t*R_t+\beta_8 OWNOFF_t+\beta_9OWNOFF_t*D_t+\beta_{10}OWNOFF_t*R_t+\beta_{11}OWNOFF_t*D_t*R_t+\beta_{12}OWNDIR_t+\beta_{13}OWNDIR_t*D_t+\beta_{14}OWNDIR_t*R_t+\beta_{15}OWNDIR_t*D_t*R_t+\beta_{16}OWNAFLIN_t+\beta_{17}OWNAFLIN_t*D_t+\beta_{18}OWNAFLIN_t*R_t+\beta_{19}OWNAFLIN_t*D_t*R_t+\beta_{20}OWNESOP_t+\beta_{21}OWNESOP_t*D_t+\beta_{22}OWNESOP_t*R_t+\beta_{23}OWNESOP_t*D_t*R_t+\beta_{24}INST_t+\beta_{25}INST_t*D_t+\beta_{26}INST_t*R_t+\beta_{27}INST_t*D_t*R_t+\beta_{28}GSCORE_t+\beta_{29}GSCORE_t*D_t+\beta_{30}GSCORE_t*R_t+\beta_{31}GSCORE_t*D_t*R_t+Control\ Variables+\varepsilon_t \quad (4)$$

OWNOUT, OWNOFF, OWNDIR, OWNAFLIN, and OWNESOP are the total ownership of blockholders who are outsiders, officers, non-officer directors, affiliated blockholders, and ESOP-related blockholders, respectively. INST is the ownership of monitoring institutions, as defined in Ramalingegowda and Yu (2012). An institution is classified as a monitoring institution if it is a dedicated institution (Bushee 2001) and it is also an investment company ("type3" institutions in the CDA/Spectrum database) or an independent investment advisor ("type 4" institutions in the CDA/Spectrum database). GSCORE is the governance index of 24 governance provisions as calculated in Gompers et al. (2003) (Ahmed and Duellman (2007) summarize two limitations associated with GSCORE. First, prior research (e.g, Gompers et al. 2003) finds limited evidence that GSCORE is related to firm performance or stock returns. Second, GSCORE primarily captures anti-takeover protection).

The control variables include LMTB, LSIZE, LLEV, and their interactions with D, R, and D*R (I repeat my analysis by also controlling for the effects of board characteristics (including a dummy variable indicating whether the CEO is also the chairman of the board, the proportion of executives serving on the board, and the number of the board meeting) on conditional conservatism. My main results remain unchanged). The effects of the market-to-book ratio (LMTB) and firm size (LSIZE) on conditional conservatism are ambiguous ex ante. Roychowdhury and Watts (2007) document a negative association between asymmetric timeliness and the market-to-book ratio. However, when asymmetric timeliness is measured over multiple years, they find a positive association between asymmetric timeliness and the market-to-book ratio. Callen et al. (2010) argue that on the one hand, large firms have lower operational uncertainty and thus have a lower demand for conditional conservatism; on the other hand, large firms may be subject to greater litigation risk and thus have a higher demand for conditional conservatism. LLEV is included to control for debt holders' demand for conditional conservatism (Ramalingegowda and Yu 2012), and its effect on conditional conservatism is expected to be positive. Finally, I also control for the other IOS variables specified in model 3 as well as fixed firm and year effects.

Following Lara et al. (2009), the following model is used to investigate the effect of the ownership of outside blockholders on the accrual-based conservatism measure.

$$ACC_t=\beta_0+\beta_1DCFO_t+\beta_2CFO_t+\beta_3DCFO_t*CFO_t+\beta_4OWNOUT_t+\beta_5OWNOUT_t*DCFO_t+\beta_6OWNOUT_t*CFO_t+\beta_7OWNOUT_t*DCFO_t*CFO_t+\beta_8OWNOFF_t+\beta_9OWNOFF_t*DCFO_t+\beta_{10}OWNOFF_t*CFO_t+\beta_{11}OWNOFF_t*DCFO_t*CFO_t+\beta_{12}OWNDIR_t+\beta_{13}OWNDIR_t*DCFO+\beta_{14}OWNDIR_t*CFO_t+\beta_{15}OWNDIR_t*DCFO_t*CFO_t+\beta_{16}OWNAFLIN_t+\beta_{17}OWNAFLIN_t*DCFO_t+\beta_{18}OWNAFLIN_t*CFO+\beta_{19}OWNAFLIN_t*DCFO_t*CFO_t+\beta_{20}OWNESOP_t+\beta_{21}OWNESOP_t*DCFO_t+\beta_{22}OWNESOP_t*CFO_t+\beta_{23}OWNESOP_t*DCFO_t*CFO_t++\beta_{24}INST_t+\beta_{25}INST_t*DCFO_t+\beta_{26}INST_t*CFO_t+\beta_{27}INST_t*DCFO_t*CFO_t+\beta_{28}GSCORE_t+\beta_{29}GSCORE_t*DCFO_t+\beta_{30}GSCORE_t*CFO_t+\beta_{31}GSCORE_t*DCFO_t*CFO_t+Control\ Variables+\varepsilon_t \quad (5)$$

β_7 measures the effect of outside blockholders' ownership on the Basu measure (accrued-based conservatism) in model 4 (model 5). A positive β_7 in models 4 and 5 would indicate that a higher level of outside blockholders' ownership is associated with a higher level of conditional conservatism. Following Lafond and Roychowdhary (2008), I also use residual block ownership unexplained by the IOS to further address the endogeneity problem that both block ownership and conditional conservatism may be determined by the IOS. Since residual block ownership is orthogonal to the IOS, its effect on conditional conservatism cannot be attributed to the variation in the IOS. In particular, I estimate the residual ownership of each type of blockholders based on model 3 using total block ownership as the dependent variable. I then substitute residual ownership for the corresponding raw ownership in models 4 and 5 and conduct my analyses based on these residual ownership variables. Table 1 summarizes the definitions of the variables used in the empirical tests.

Table 1. Variable definition

OWNOUT	Either the total ownership of outside blockholders (SUMOUT) or the average ownership of outside blockholders (AVOUT). AVOUT is equal to SUMOUT divided by the number of outside blockholders (NUMOUT) if NUMOUT is not zero, and zero otherwise.
OWNOFF	Either the total ownership of officer blockholders (SUMOFF) or the average ownership of officer blockholders (AVOFF). AVOFF is equal to SUMOFF divided by the number of officer blockholders (NUMOFF) if NUMOFF is not zero, and zero otherwise.
OWNDIR	Either the total ownership of blockholders who are non-officer directors (SUMDIR) or the average ownership of blockholders who are non-officer directors (AVDIR). AVDIR is equal to SUMDIR divided by the number of blockholders who are non-officer directors (NUMDIR) if NUMDIR is not zero, and zero otherwise.
OWNAFLIN	Either the total ownership of affiliated blockholders (SUMAFLIN) or the average ownership of affiliated blockholders (AVAFLIN). AVAFLIN is equal to SUMAFLIN divided by the number of affiliated blockholders (NUMAFLIN) if NUMAFLIN is not zero, and zero otherwise.
OWNESOP	Either the total ownership of ESOP-related blockholders (SUMESOP) or the average ownership of ESOP-related blockholders (AVESOP). AVESOP is equal to SUMESOP divided by the number of ESOP-related blockholders (NUMESOP) if NUMESOP is not zero, and zero otherwise.
NUMOUT	The number of outside blockholders.
NUMOFF	The number of officer blockholders
NUMDIR	The number of blockholders who are non-officer directors
NUMAFLIN	The number of affiliated blockholders
NUMESOP	The number of blockholders who hold shares through Employee Share Ownership Plans.
INST	The ownership of monitoring institutions, as defined in Ramalingegowda and Yu (2012). An institution is classified as a monitoring institution if it is a dedicated institution as defined by Bushee (2001) and it is also an investment company ("type3" institutions as classified by the CDA/Spectrum database) or an independent investment advisor ("type 4" institutions as classified by the CDA/Spectrum database).
GSCORE	Governance index of 24 governance provisions as calculated in Gompers et al. (2003). GSCORE was obtained from Andrew Metrick's website. Note that GSCORE is only available in 1995, 1998, 2000, and 2002. GSCORE for 1996 is assumed to be equal to GSCORE in 1996. GSCORE for 1997 is assumed to be equal to GSCORE in 1998. GSCORE for 1999 is the average GSCORE for 1998 and 2000, while GSCORE for 2001 is the average GSCORE for 2000 and 2002.
NI	Net income before extraordinary items, deflated by the market value of equity at the beginning of the fiscal year.
R	The buy-and-hold return over the fiscal year.
D	A dummy variable equal to 1 if R is less than zero, and zero otherwise.
ACC	Total accruals, calculated as net income before extraordinary items less cash flows from operations, where both variables are scaled by average total assets.
CFO	Net cash flows from operations scaled by average total assets.
DCFO	A dummy variable equal to 1 if CFO is less than zero, and zero otherwise.
SKW	Earnings skewness over a three-year period centered on year t. Following Zhang (2008), SKW is calculated as skewness of earnings, divided by skewness of cash flow from operations and multiplied by negative 1.
CR	Conservatism ratio as constructed by Callen et al. (2011), defined as the ratio of unexpected current earnings to total earnings news. In particular, CRt = η2t/Net, where η2t is the earnings surprise from the VAR system (see Eq. 6b), and Net = e2'(I-ρA)-1ηt. e2' is a vector equal to (0, 1, 0), I is the identity matrix, ρ is a constant equal to 0.967, A is the matrix of estimated coefficients from the system of equations (6), and ηt = [η1t, η2t, η3t]'.
CSCORE	The firm-year Basu measure based on Khan and Watts (2009).
LMTB	The market-to-book ratio at the beginning of the fiscal year.
LSIZE	The natural log of the market value of equity at the beginning of the fiscal year.

Table 1 (continued)

LLEV	Financial leverage, calculated as total debt divided by total assets, measured at the beginning of the fiscal year.
LN(S)	The natural log of annual sales.
$LN(S)^2$	The square of LN(S).
SE	Firm-specific risk, calculated as the standard error of the residuals from a regression of monthly stock returns on value-weighted market return including all dividends distribution. If it is missing, then it is set to zero.
BETA	Market risk, measured as the slope coefficient of the regression of monthly stock returns on value-weighted market return including all dividends distribution. If it is missing, then it is set to zero.
SEDUM	A dummy variable equal to 1 if data used to estimate SE and BETA are available, and zero otherwise.
AD	Annual advertising expense deflated by annual net sales.
ADUM	A dummy variable equal to 1 if AD is not equal to zero, and zero otherwise.
RD	Annual R&D expense deflated by annual net sales.
RDUM	A dummy variable equal to 1 if RD is not equal to zero, and zero otherwise.
FIX	Fixed assets deflated by annual net sales.
FDUM	A dummy variable equal to 1 if FIX is not equal to zero, and zero otherwise.
OM	Operating income before depreciation as a percentage of sales.
INVI	Investment intensity, measured as the ratio of capital expenditures to total assets.

4. Sample selection and descriptive statistics

I obtain the number and ownership of each type of blockholders from the DFG database. This database consists of 7,649 firm-years and 1,913 unique firms from 1996 to 2001 (Since blockholder information is based on the calendar year and is usually filed several months after the fiscal year end, the fiscal year of blockholder information is assumed to be one year before the year the proxy statements was filed with the SEC). I then obtain all the accounting information from Compustat and stock returns from CRSP. Institutional ownership and the types of institutions are obtained from CDA/Spectrum S34 database. I use the factor and cluster analysis approach described in Bushee (2001) to identify dedicated institutions. GSCORE is obtained from Andrew Metrick's website, where GSCORE is only available in 1995, 1998, 2000, and 2002. To avoid deleting observations in 1996, 1997, 1999 and 2001, GSCORE for 1996 (1997) is assumed to equal GSCORE in 1995 (1998), and GSCORE for 1999 (2001) is assumed to equal the average GSCORE for 1998 (2000) and 2000 (2002).

I delete observations with missing values for earnings, accruals, cash flows, stock returns, GSCORE, and observations with negative market-to-book ratios. To alleviate the effect of outliers, observations in the top or bottom 1% of price-deflated earnings, returns, accruals and cash flows are truncated (Results based on the data without truncation remain unchanged. Additionally, truncation at the 0.5 % and 5% levels provides qualitatively similar results). I delete all the firms with only one year data available to facilitate the fixed firm effect analysis. Finally, following the prior literature (e.g., Ahmed and Duellman 2007), I delete all the financial firms with two-digit SIC codes from 60 to 69. The final sample includes 4,608 firm-years and 1,036 unique firms.

Table 2 reports the descriptive statistics of the main variables. Outside blockholders are much more common than inside blockholders. Specifically, more than 75% of the sample firms have no inside blockholders at all (Q3 of NUMOFF and NUMDIR = 0), while more than 75% of the sample firms have at least one outside blockholder, who holds at least 6% of total outstanding shares (Q1 of SUMOUT = 0.06). As a result, outside blockholders have much larger ownership (mean of SUMOUT = 0.17) than inside blockholders (mean of SUMOFF = 0.03 and mean of SUMDIR = 0.01). The mean of CFO is positive (mean = 0.11), while the mean of ACC is negative (mean = -0.05), suggesting that the sample firms have income-decreasing accruals on average and accruals tend to mitigate noises in operating cash flows. The mean of GSCORE (mean = 9.37) is similar to that reported by Ahmed and Duellman (2007).

Table 2. Various descriptive statistics

Variable	Mean	Std. Dev.	Min	Q1	Median	Q3	Max
NI	0.05	0.06	-0.31	0.03	0.05	0.08	0.89
R	0.07	0.42	-0.77	-0.21	0.04	0.29	1.94
ACC	-0.05	0.07	-0.96	-0.08	-0.05	-0.01	0.41
CFO	0.11	0.09	-0.72	0.06	0.11	0.16	0.56
SUMOUT	0.17	0.15	0.00	0.06	0.14	0.26	0.80
NUMOUT	1.87	1.51	0.00	1.00	2.00	3.00	9.00
SUMOFF	0.03	0.08	0.00	0.00	0.00	0.00	0.67
NUMOFF	0.19	0.47	0.00	0.00	0.00	0.00	4.00
SUMDIR	0.01	0.05	0.00	0.00	0.00	0.00	0.56
NUMDIR	0.11	0.38	0.00	0.00	0.00	0.00	4.00
SUMAFLIN	0.02	0.07	0.00	0.00	0.00	0.00	0.81
NUMAFLIN	0.12	0.37	0.00	0.00	0.00	0.00	4.00
SUMESOP	0.01	0.04	0.00	0.00	0.00	0.00	0.37
NUMESOP	0.10	0.31	0.00	0.00	0.00	0.00	2.00
INST	0.03	0.06	0.00	0.00	0.00	0.04	0.82
GSCORE	9.37	2.73	2.00	7.00	9.00	11.00	18.00
LMTB	3.39	2.96	0.17	1.64	2.42	4.01	21.21
LSIZE	7.26	1.51	2.07	6.19	7.10	8.17	13.14
LLEV	0.19	0.15	0.00	0.06	0.18	0.29	0.82

Table 2 reports the descriptive statistics of the main variables. The sample includes 4,608 firm-year observations and 1,036 firms from 1996 to 2001. All the variables are as defined in Table 1.

Table 3 presents the correlation coefficients of the main variables. Spearman (Pearson) correlations are reported below (above) the diagonal. SUMOUT is generally correlated with the ownership of the other types of blockholders, indicating the importance of controlling for the effects of the other types of blockholders on conservatism. Since lower GSCORE represents stronger corporate governance, the negative correlation between GSCORE and SUMOUT (Pearson correlation = -0.08; Spearman correlation = -0.06) is consistent with firms with higher outside blockholders' ownership exhibiting stronger corporate governance. Given that some of the outside blockholders are also monitoring institutions, it is not surprising that INST is positively correlated with SUMOUT (Pearson correlation = 0.18; Spearman correlation = 0.06). In addition, the relatively low correlation between GSCORE (INST) and SUMOUT suggests that GSCORE (INST) does not fully capture the monitoring role of outside blockholders.

Table 3. Correlation coefficients of main variables

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1)	NI		0.29	0.31	0.17	-0.07	0.00	0.01	0.03	0.06	-0.05	0.09	-0.15	-0.06	0.05
			(0.00)	(0.00)	(0.00)	(0.00)	(0.97)	(0.46)	(0.04)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
(2)	R	0.39		0.00	0.09	-0.02	-0.02	-0.01	0.01	-0.02	0.01	-0.00	-0.11	-0.08	0.02
		(0.00)		(0.77)	(0.00)	(0.27)	(0.10)	(0.72)	(0.53)	(0.29)	(0.40)	(0.77)	(0.00)	(0.00)	(0.15)
(3)	ACC	0.20	0.00		-0.46	-0.02	0.03	0.03	-0.01	0.01	-0.03	0.01	-0.01	-0.01	-0.03
		(0.00)	(0.85)		(0.00)	(0.10)	(0.03)	(0.08)	(0.47)	(0.72)	(0.06)	(0.35)	(0.48)	(0.35)	(0.08)
(4)	CFO	0.13	0.09	-0.47		-0.08	0.01	-0.02	0.03	-0.03	0.01	-0.05	0.35	0.20	-0.22
		(0.00)	(0.00)	(0.00)		(0.00)	(0.66)	(0.27)	(0.08)	(0.06)	(0.49)	(0.00)	(0.00)	(0.00)	(0.00)
(5)	SUMOUT	-0.06	-0.03	-0.02	-0.09		-0.04	-0.06	-0.09	-0.12	0.19	-0.09	-0.10	-0.28	0.04
		(0.00)	(0.05)	(0.27)	(0.00)		(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)
(6)	SUMOFF	-0.04	-0.05	0.02	0.04	0.00		-0.01	-0.02	-0.06	0.01	-0.21	0.01	-0.19	-0.13
		(0.01)	(0.00)	(0.12)	(0.02)	(0.79)		(0.32)	(0.26)	(0.00)	(0.41)	(0.00)	(0.70)	(0.00)	(0.00)
(7)	SUMDIR	0.01	-0.00	0.02	0.00	-0.04	0.06		-0.00	-0.04	-0.02	-0.10	-0.01	-0.09	-0.05
		(0.69)	(0.79)	(0.13)	(0.89)	(0.01)	(0.00)		(0.90)	(0.00)	(0.25)	(0.00)	(0.43)	(0.00)	(0.00)
(8)	SUMAFLIN	0.02	-0.01	-0.02	0.08	-0.11	0.00	0.05		-0.03	0.01	-0.12	-0.01	-0.07	0.03
		(0.19)	(0.43)	(0.27)	(0.00)	(0.00)	(0.95)	(0.00)		(0.05)	(0.52)	(0.00)	(0.73)	(0.00)	(0.04)
(9)	SUMESOP	0.10	0.00	-0.01	-0.03	-0.13	-0.07	-0.04	-0.02		-0.04	0.10	-0.08	0.01	0.04
		(0.00)	(0.96)	(0.71)	(0.06)	(0.00)	(0.00)	(0.00)	(0.19)		(0.00)	(0.00)	(0.00)	(0.55)	(0.01)
(10)	INST	-0.11	-0.01	-0.03	0.05	0.06	0.03	-0.02	-0.01	-0.03		-0.06	0.02	-0.13	-0.04
		(0.00)	(0.42)	(0.07)	(0.00)	(0.00)	(0.05)	(0.19)	(0.48)	(0.03)		(0.00)	(0.31)	(0.00)	(0.00)
(11)	GSCORE	0.10	0.02	0.01	-0.04	-0.07	-0.23	-0.09	-0.11	0.09	-0.05		-0.10	0.09	0.11
		(0.00)	(0.16)	(0.44)	(0.02)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)		(0.00)	(0.00)	(0.00)
(12)	LMTB	-0.29	-0.15	0.05	0.38	-0.12	-0.01	0.01	0.03	-0.07	0.11	-0.07		0.43	-0.17
		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.38)	(0.72)	(0.06)	(0.00)	(0.00)	(0.00)		(0.00)	(0.00)
(13)	LSIZE	-0.14	-0.05	-0.03	0.17	-0.27	-0.22	-0.10	-0.07	0.03	-0.01	0.12	0.49		-0.03
		(0.00)	(0.00)	(0.08)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.02)	(0.59)	(0.00)	(0.00)		(0.09)
(14)	LLEV	0.12	0.03	-0.05	-0.26	0.01	-0.15	-0.07	0.01	0.07	-0.08	0.14	-0.25	0.01	
		(0.00)	(0.07)	(0.00)	(0.00)	(0.58)	(0.00)	(0.00)	(0.37)	(0.00)	(0.00)	(0.00)	(0.00)	(0.36)	

Table 3 reports correlation coefficients of the main variables for the sample. All the variables are as defined in Table 1. Spearman (Pearson) correlations are shown below (above) the diagonal

5. Empirical results

Table 4 reports the effect of the total ownership of outside blockholders on asymmetric timeliness based on model 4. Specification 1 (specification 2) uses the total (residual) ownership of each type of blockholders. The coefficient on SUMOUT*D*R is positive at the 0.01 level (coefficient = 0.129 and t-statistic = 3.57 for specification 1; coefficient = 0.120 and t-statistic = 3.14 for specification 2), suggesting that firms with higher ownership of outside blockholders exhibit higher conditional conservatism. Furthermore, the coefficient on SUMOUT*R is negative, indicating that a higher level of outside blockholders' ownership is associated with less earnings timeliness to good news. Untabulated results show that the sum of the coefficients on SUMOUT*R and SUMOUT*D*R is positive (p-value = 0.017 for specification 1; p-value = 0.036 for specification 2), suggesting that firms with a higher level of ownership by outside blockholders exhibit more timely loss recognition.

The coefficients on OWNOFF*D*R and OWNDIR*D*R are not significant, suggesting that the entrenchment effect may offset the interest-alignment effect for inside blockholders, as their ownership increases. The coefficient on OWNESOP*D*R is positive (coefficient = 0.389 and t-statistic = 2.54 for specification 1; coefficient = 0.428 and t-statistic = 2.67 for specification 2), indicating that a higher level of ESOP-related blockholders' ownership is associated with a higher level of asymmetric timeliness.

In contrast to Ramalingegowda and Yu (2012), the coefficient on INST*D*R is not significant. One possible explanation is that block ownership may subsume the explanatory power of INST. To reconcile this result with Ramalingegowda and Yu (2012), I repeat my analysis based on a reduced form of model 4 by excluding all the variables related to block ownership. Consistent with Ramalingegowda and Yu (2012), the untabulated results suggest that the ownership of monitoring institutions is positively associated with asymmetric timeliness (coefficient = 0.145, t-statistic = 1.76). In addition, consistent with Ahmed and Duellman (2007), the coefficient on GSCORE*D*R is not significant in both specifications.

Table 4. The effect of block ownership on the Basu measure

	(1) Total ownership		(2) Unexpected total ownership	
	Coefficient	t-statistics	Coefficient	t-statistics
D	-0.010	(-0.82)	-0.022	(-2.09)**
R	0.037	(2.24)**	0.014	(1.04)
D*R	-0.037	(-1.04)	0.004	(0.14)
OWNOUT	0.013	(1.29)	0.011	(1.02)
OWNOUT*D	0.000	(0.03)	0.000	(-0.03)
OWNOUT*R	-0.054	(-3.07)***	-0.049	(-2.73)***
OWNOUT*D*R	**0.129**	**(3.57)*** **	**0.120**	**(3.14)*** **
OWNOFF	-0.006	(-0.22)	-0.012	(-0.41)
OWNOFF*D	-0.026	(-1.15)	-0.025	(-1.00)
OWNOFF *R	-0.026	(-0.82)	-0.024	(-0.72)
OWNOFF*D*R	-0.001	(-0.01)	0.021	(0.28)
OWNDIR	-0.015	(-0.44)	-0.003	(-0.08)
OWNDIR*D	0.018	(0.57)	0.016	(0.46)
OWNDIR*R	0.092	(2.15)**	0.094	(2.13)**
OWNDIR*D*R	-0.094	(-0.98)	-0.065	(-0.65)
OWNAFLIN	0.017	(0.73)	0.015	(0.62)
OWNAFLIN*D	0.022	(0.96)	0.021	(0.87)
OWNAFLIN *R	0.027	(0.81)	-0.023	(-0.81)
OWNAFLIN*D*R	0.098	(1.43)	0.162	(2.32)**
OWNESOP	0.118	(2.64)***	0.114	(2.51)**
OWNESOP*D	-0.012	(-0.24)	0.012	(0.23)
OWNESOP*R	-0.164	(-1.79)*	-0.172	(-1.84)*
OWNESOP*D*R	0.389	(2.54)**	0.428	(2.67)***
INST	-0.010	(-0.82)	-0.002	(-0.07)
INST*D	0.037	(2.24)**	-0.030	(-0.82)
INST*R	-0.037	(-1.04)	-0.010	(-0.22)
INST*D*R	0.013	(1.29)	0.086	(0.92)
GSCORE	0.000	(0.03)	-0.001	(-1.00)
GSCORE*D	-0.054	(-3.07)***	0.000	(0.13)
GSCORE*R	0.129	(3.57)***	0.000	(-0.44)
GSCORE*D*R	-0.006	(-0.22)	0.003	(1.36)
LMTB, LSIZE, LLEV and their interactions with D, R, and D*R	Yes		Yes	
IOS variables and fixed firm and year effects	Yes		Yes	
Adj. R^2	0.626		0.625	

Table 4 reports the effect of outside blockholders' ownership on asymmetric timeliness of earnings.

$$NI_t = \beta_0+\beta_1 D_t+\beta_2 R_t+\beta_3 D_t*R_t+\beta_4 OWNOUT_t+\beta_5 OWNOUT_t*D_t+\beta_6 OWNOUT_t*R_t+\beta_7 OWNOUT_t*D_t*R_t +\beta_8 OWNOFF_t+\beta_9 OWNOFF_t*D_t+\beta_{10} OWNOFF_t*R_t+\beta_{11} OWNOFF_t*D_t*R_t+\beta_{12} OWNDIR_t+\beta_{13} OWNDIR_t*D_t+\beta_{14} OWNDIR_t*R_t+\beta_{15} OWNDIR_t*D_t*R_t+\beta_{16} OWNAFLIN_t+\beta_{17} OWNAFLIN_t*D_t+\beta_{18} OWNAFLIN_t*R_t+\beta_{19} OWNAFLIN_t*D_t*R_t+\beta_{20} OWNESOP_t+\beta_{21} OWNESOP_t*D_t+\beta_{22} OWNESOP_t*R_t+\beta_{23} OWNESOP_t*D_t*R_t+\beta_{24} INST_t+\beta_{25} INST_t*D_t+\beta_{26} INST_t*R_t+\beta_{27} INST_t*D_t*R_t+\beta_{28} GSCORE_t+\beta_{29} GSCORE_t*D_t+\beta_{30} GSCORE_t*R_t+\beta_{31} GSCORE_t*D_t*R_t + Control\ Variables+\varepsilon_t \quad (4)$$

OWNOFF, OWNDIR, OWNAFLIN, and OWNESOP, and OWNOUT represent the total ownership of blockholders in category 1 through 5, respectively. All the variables are as defined in Table 1. Specification 1 (specification 2) uses the total (unexpected total) ownership of each type of blockholders. The unexpected total ownership of each type of blockholders is estimated based on model 3 using total block ownership as the dependent variable. *, **, and *** denote significance of coefficients at the 10%, 5% and 1% levels respectively, using a two tailed test. The variable of interest is highlighted in bold.

Table 5 reports the effect of the total ownership of outside blockholders on the accrual-based conservatism measure based on model 5. Consistent with the results reported in Table 4, the coefficient on OWNOUT*DCFO*CFO is positive (coefficient = 0.984 and t-statistic = 2.00 for specification 1; coefficient = 1.138 and t-statistic = 2.05 for specification 2). The coefficient on OWNOUT*CFO is negative, indicating that firms with a higher level of outside blockholders' ownership exhibit less timely recognition of gains via accruals. Untabulated results show that the sum of the coefficients on OWNOUT*CFO and OWNOUT*DCFO*CFO is positive (p-value=0.095 for specification 1; p-value = 0.066 for specification 2), consistent with outside blockholders' demand for timely recognition of accrued losses.

Consistent with the results based on the Basu measure, the coefficients on INST*DCFO*CFO and GSCORE*DCFO*CFO are not significant, suggesting that INST and GSCORE do not explain the variation of accrual-based conditional conservatism above and beyond the block ownership variables. Interesting, the coefficient on OWNESOP*DCFO*CFO is negative, suggesting that a higher level of ESOP-related blockholders' ownership is associated with a lower level of accrual-based conditional conservatism. Taken together, the results reported in Tables 4 and 5 are consistent with the view that outside blockholders demand conservative financial reporting.

Table 5. The effect of block ownership on accrual-based conditional conservatism

	(1) Total ownership		(2) Unexpected total ownership	
	Coefficient	t-statistics	Coefficient	t-statistics
DCFO	0.026	(1.14)	-0.005	(-0.23)
CFO	-0.625	(-9.31)***	-0.743	(-11.65)***
DCFO*CFO	-0.763	(-1.65)*	-0.751	(-1.59)
OWNOUT	-0.006	(-0.69)	-0.011	(-1.14)
OWNOUT*DCFO	-0.016	(-0.66)	0.002	(0.07)
OWNOUT*CFO	-0.169	(-2.74)***	-0.125	(-1.85)*
OWNOUT*DCFO*CFO	**0.984**	**(2.00)****	**1.138**	**(2.05)****
OWNOFF	-0.021	(-0.86)	-0.023	(-0.84)
OWNOFF*DCFO	-0.052	(-1.44)	-0.036	(-0.81)
OWNOFF*CFO	-0.436	(-3.31)***	-0.247	(-1.63)
OWNOFF*DCFO*CFO	0.185	(0.26)	0.292	(0.33)
OWNDIR	0.023	(0.79)	0.007	(0.23)
OWNDIR*DCFO	-0.141	(-1.77)*	-0.069	(-0.81)
OWNDIR*CFO	-0.129	(-0.78)	0.109	(0.59)
OWNDIR*DCFO*CFO	-1.039	(-0.69)	0.509	(0.31)
OWNAFLIN	0.005	(0.22)	-0.021	(-0.89)
OWNAFLIN*DCFO	-0.116	(-2.37)**	-0.142	(-2.34)**
OWNAFLIN*CFO	-0.362	(-2.59)***	-0.154	(-0.99)
OWNAFLIN*DCFO*CFO	-0.373	(-0.47)	-0.983	(-1.04)
OWNESOP	-0.028	(-0.67)	-0.055	(-1.14)
OWNESOP*DCFO	-0.415	(-2.98)***	-0.318	(-2.32)**
OWNESOP*CFO	0.002	(0.01)	0.125	(0.37)
OWNESOP*DCFO*CFO	-11.553	(-2.50)**	-9.333	(-2.11)**
INST	-0.014	(-0.88)	-0.006	(-0.31)
INST*DCFO	0.002	(0.04)	-0.001	(-0.02)
INST*CFO	0.034	(0.30)	0.061	(0.44)
INST*DCFO*CFO	-1.001	(-0.97)	-1.854	(-1.36)
GSCORE	0.001	(1.00)	0.002	(2.42)**
GSCORE*DCFO	-0.002	(-1.26)	-0.001	(-0.63)
GSCORE*CFO	-0.014	(-3.70)***	-0.015	(-3.62)***
GSCORE*DCFO*CFO	-0.008	(-0.28)	0.037	(1.29)
LMTB, LSIZE, LLEV and their interactions with D, R, and D*R	Yes		Yes	
IOS variables and fixed firm and year effects	Yes		Yes	
Adj. R^2	0.826		0.831	

Table 5 reports the effect of outside blockholders' ownership on accrual-based conditional conservatism.

$$ACC_t=\beta_0+\beta_1 DCFO_t+\beta_2 CFO_t+\beta_3 DCFO_t*CFO_t+\beta_4 OWNOUT_t+\beta_5 OWNOUT_t*DCFO_t+\beta_6 OWNOUT_t*CFO_t+\beta_7 OWNOUT_t*DCFO_t*CFO_t+\beta_8 OWNOFF_t+\beta_9 OWNOFF_t*DCFO_t+\beta_{10} OWNOFF_t*CFO_t+\beta_{11} OWNOFF_t*DCFO_t*CFO_t+\beta_{12} OWNDIR_t+\beta_{13} OWNDIR_t*DCFO+\beta_{14} OWNDIR_t*CFO_t+\beta_{15} OWNDIR_t*DCFO_t*CFO_t+\beta_{16} OWNAFLIN_t+\beta_{17} OWNAFLIN_t*DCFO_t+\beta_{18} OWNAFLIN_t*CFO+\beta_{19} OWNAFLIN_t*DCFO_t*CFO_t+\beta_{20} OWNESOP_t+\beta_{21} OWNESOP_t*DCFO_t+\beta_{22} OWNESOP_t*CFO_t+\beta_{23} OWNESOP_t*DCFO_t*CFO_t++\beta_{24} INST_t+\beta_{25} INST_t*DCFO_t+\beta_{26} INST_t*CFO_t+\beta_{27} INST_t*DCFO_t*CFO_t+\beta_{28} GSCORE_t+\beta_{29} GSCORE_t*DCFO_t+\beta_{30} GSCORE_t*CFO_t+\beta_{31} GSCORE_t*DCFO_t*CFO_t+Control\ Variables+\varepsilon_t \quad (5)$$

OWNOFF, OWNDIR, OWNAFLIN, and OWNESOP, and OWNOUT represent the total ownership of blockholders in category 1 through 5, respectively. All the variables are as defined in Table 1. *, **, and *** denote significance of coefficients at the 10%, 5% and 1% levels respectively, using a two tailed test. The variable of interest is highlighted in bold.

6. Additional analyses

6.1. The effect of average ownership on conditional conservatism

In this section, I examine the effect of average ownership of outside blockholders on conditional conservatism. Prior literature suggests that the number of outside blockholders is negatively associated with their monitoring strength. First, coordination and communication costs may increase with the number of outside blockholders. Holding the sum of the stakes by outside blockholders constant, as the number of outside blockholders increases, it becomes more difficult to coordinate among them (Raheja 2005). Second, outside blockholders may vary in their belief, skills, or preferences (Cronqvist and Fahlenbrach 2009), which increases the hurdle to reach consensus among them. Finally, diluting ownership among more outside shareholders leads to the free-rider problem so that each individual blockholder has insufficient incentives to bear the cost of monitoring (e.g., Holderness 2009; Edmans and Manso 2011).

Overall, the above discussion suggests that, for a given level of outside blockholders' ownership, increasing the number of outside blockholders may decrease their incentives and abilities to monitor managers and impose conditional conservatism. Therefore, conditional conservatism should be positively associated with the ratio of outside blockholders' ownership to the number of outside blockholders (i.e., the average ownership of outside blockholders). I examine the association between the average ownership of each type of blockholders and conservatism using models 4 and 5, where OWNOUT, OWNOFF, OWNDIR, OWNAFLIN, and OWNESOP are the average ownership of blockholders who are outsiders, officers, non-officer directors, affiliated blockholders, and ESOP-related blockholders, respectively.

Table 6 reports the effects of the average ownership of outside blockholders on the Basu measure and the accrual-based conservatism measure. Results based on two specifications are reported in each panel. Specification 1 (specification 2) uses the average (unexpected average) ownership of each type of blockholders. The unexpected average ownership of each type of blockholders is estimated based on model 3 using the average ownership of each type of blockholders as the dependent variable.

The coefficient on OWNOUT*D*R is positive (coefficient = 0.166 and t-statistic = 2.09 for specification 1; coefficient = 0.151 and t-statistic = 1.81 for specification 2), suggesting that firms with higher average ownership of outside blockholders exhibit higher asymmetric timeliness of earnings. Similarly, the coefficient on OWNOUT*DCFO*CFO is positive (coefficient = 3.940 and t-statistic = 2.91 for specification 1; coefficient = 5.304 and t-statistic = 3.41 for specification 2), suggesting that firms with higher average ownership of outside blockholders exhibit higher accrual-based conditional conservatism. Overall, the results are consistent with view that ceteris paribus, increasing the number of outside blockholders may decrease their incentives and abilities to monitor managers and impose conditional conservatism.

Table 6. The effect of average ownership of outside blockholders on conditional conservatism

Panel A:	Dependent variable: NI				Panel B:	Dependent variable: ACC			
	(1) Average ownership		(2) Unexpected average ownership			(1) Average ownership		(2) Unexpected average ownership	
	Coeff.	t-stat.	Coeff.	t-stat.		Coeff.	t-stat.	Coeff.	t-stat.
D	-0.010	(-0.84)	-0.021	(-2.07)**	DCFO	0.007	(0.30)	0.001	(0.05)
R	0.033	(2.13)**	0.015	(1.16)	CFO	-0.684	(-10.69)***	-0.758	(-11.94)***
D*R	-0.021	(-0.60)	0.002	(0.08)	DCFO*CFO	-0.866	(-1.92)*	-0.634	(-1.52)
OWNOUT	0.012	(0.53)	0.008	(0.32)	OWNOUT	-0.004	(-0.18)	-0.014	(-0.65)
OWNOUT*D	-0.007	(-0.25)	-0.002	(-0.05)	OWNOUT*DCFO	0.120	(1.66)*	0.204	(2.45)**
OWNOUT*R	-0.081	(-2.19)**	-0.069	(-1.84)*	OWNOUT*CFO	-0.164	(-1.26)	-0.128	(-0.90)
OWNOUT*D*R	**0.166**	**(2.09)****	**0.151**	**(1.81)***	**OWNOUT*DCFO*CFO**	**3.940**	**(2.91)*****	**5.304**	**(3.41)*****
OWNOFF	0.011	(0.35)	0.000	(-0.00)	OWNOFF	-0.018	(-0.63)	-0.018	(-0.54)
OWNOFF*D	-0.034	(-1.25)	-0.029	(-0.99)	OWNOFF*DCFO	-0.054	(-1.32)	-0.030	(-0.61)
OWNOFF *R	-0.035	(-0.86)	-0.025	(-0.63)	OWNOFF*CFO	-0.456	(-2.90)***	-0.322	(-1.75)*
OWNOFF*D*R	-0.017	(-0.21)	0.013	(0.15)	OWNOFF*DCFO*CFO	0.053	(0.06)	0.367	(0.37)
OWNDIR	-0.013	(-0.35)	-0.014	(-0.37)	OWNDIR	0.027	(0.90)	0.015	(0.43)
OWNDIR*D	0.021	(0.57)	0.046	(1.19)	OWNDIR*DCFO	-0.177	(-2.04)**	-0.139	(-1.52)
OWNDIR*R	0.132	(2.51)**	0.169	(3.07)***	OWNDIR*CFO	-0.039	(-0.22)	0.189	(0.95)
OWNDIR*D*R	-0.169	(-1.42)	-0.130	(-1.20)	OWNDIR*DCFO*CFO	-1.417	(-0.94)	-1.320	(-0.80)
OWNAFLIN	0.030	(1.13)	0.033	(1.23)	OWNAFLIN	-0.001	(-0.06)	-0.026	(-0.99)
OWNAFLIN*D	0.025	(1.02)	0.020	(0.79)	OWNAFLIN*DCFO	-0.117	(-2.43)**	-0.123	(-1.96)*
OWNAFLIN *R	0.031	(0.90)	-0.027	(-0.90)	OWNAFLIN*CFO	-0.291	(-2.09)**	-0.109	(-0.69)
OWNAFLIN*D*R	0.103	(1.42)	0.174	(2.34)**	OWNAFLIN*DCFO*CFO	-0.439	(-0.56)	-0.750	(-0.77)
OWNESOP	0.109	(2.38)**	0.110	(2.36)**	OWNESOP	-0.021	(-0.51)	-0.041	(-0.85)
OWNESOP*D	-0.017	(-0.33)	0.006	(0.11)	OWNESOP*DCFO	-0.442	(-2.63)***	-0.259	(-1.57)
OWNESOP*R	-0.143	(-1.51)	-0.154	(-1.60)	OWNESOP*CFO	0.085	(0.28)	0.105	(0.30)
OWNESOP*D*R	0.303	(1.89)*	0.350	(2.08)**	OWNESOP*DCFO*CFO	-13.620	(-2.77)***	-8.166	(-1.73)*
INST	-0.013	(-0.64)	0.007	(0.31)	INST	-0.014	(-0.92)	-0.001	(-0.04)
INST*D	-0.027	(-0.89)	-0.036	(-0.99)	INST*DCFO	-0.042	(-0.80)	0.032	(0.52)
INST*R	-0.017	(-0.46)	-0.030	(-0.67)	INST*CFO	0.016	(0.14)	-0.010	(-0.08)
INST*D*R	0.064	(0.80)	0.128	(1.37)	INST*DCFO*CFO	-1.684	(-1.62)	-0.116	(-0.09)
GSCORE	-0.001	(-0.97)	-0.001	(-1.13)	GSCORE	0.001	(1.02)	0.003	(2.76)***
GSCORE*D	0.000	(-0.13)	0.000	(0.17)	GSCORE*DCFO	-0.002	(-1.29)	-0.001	(-0.76)
GSCORE*R	0.000	(-0.31)	0.000	(-0.28)	GSCORE*CFO	-0.011	(-3.07)***	-0.013	(-3.31)***
GSCORE*D*R	0.002	(1.11)	0.002	(1.17)	GSCORE*DCFO*CFO	-0.007	(-0.24)	0.001	(0.05)
Control variables	Yes		Yes		Control variables	Yes		Yes	
Adj. R^2	0.625		0.623		Adj. R^2	0.832		0.833	

Table 6 (Continued)

Panel A of Table 6 reports the effect of the average ownership of outside blockholders on the Basu measure based on the following model.

$$NI_t=\beta_0+\beta_1 D_t+\beta_2 R_t+\beta_3 D_t*R_t+\beta_4 OWNOUT_t+\beta_5 OWNOUT_t*D_t+\beta_6 OWNOUT_t*R_t+\beta_7 OWNOUT_t*D_t*R_t+\beta_8 OWNOFF_t+\beta_9 OWNOFF_t*D_t+\beta_{10} OWNOFF_t*R_t+\beta_{11} OWNOFF_t*D_t*R_t+\beta_{12} OWNDIR_t+\beta_{13} OWNDIR_t*D_t+\beta_{14} OWNDIR_t*R_t+\beta_{15} OWNDIR_t*D_t*R_t+\beta_{16} OWNAFLIN_t+\beta_{17} OWNAFLIN_t*D_t+\beta_{18} OWNAFLIN_t*R_t+\beta_{19} OWNAFLIN_t*D_t*R_t+\beta_{20} OWNESOP_t+\beta_{21} OWNESOP_t*D_t+\beta_{22} OWNESOP_t*R_t+\beta_{23} OWNESOP_t*D_t*R_t+\beta_{24} INST_t+\beta_{25} INST_t*D_t+\beta_{26} INST_t*R_t+\beta_{27} INST_t*D_t*R_t+\beta_{28} GSCORE_t+\beta_{29} GSCORE_t*D_t+\beta_{30} GSCORE_t*R_t+\beta_{31} GSCORE_t*D_t*R_t+Control\ Variables+\varepsilon_t \quad (4)$$

Panel B of Table 6 reports the effect of the average ownership of outside blockholders on accrual-based conditional conservatism.

$$ACC_t=\beta_0+\beta_1 DCFO_t+\beta_2 CFO_t+\beta_3 DCFO_t*CFO_t+\beta_4 OWNOUT_t+\beta_5 OWNOUT_t*DCFO_t+\beta_6 OWNOUT_t*CFO_t+\beta_7 OWNOUT_t*DCFO_t*CFO_t+\beta_8 OWNOFF_t+\beta_9 OWNOFF_t*DCFO_t+\beta_{10} OWNOFF_t*CFO_t+\beta_{11} OWNOFF_t*DCFO_t*CFO_t+\beta_{12} OWNDIR_t+\beta_{13} OWNDIR_t*DCFO+\beta_{14} OWNDIR_t*CFO_t+\beta_{15} OWNDIR_t*DCFO_t*CFO_t+\beta_{16} OWNAFLIN_t+\beta_{17} OWNAFLIN_t*DCFO_t+\beta_{18} OWNAFLIN_t*CFO+\beta_{19} OWNAFLIN_t*DCFO_t*CFO_t+\beta_{20} OWNESOP_t+\beta_{21} OWNESOP_t*DCFO_t+\beta_{22} OWNESOP_t*CFO_t+\beta_{23} OWNESOP_t*DCFO_t*CFO_t++\beta_{24} INST_t+\beta_{25} INST_t*DCFO_t+\beta_{26} INST_t*CFO_t+\beta_{27} INST_t*DCFO_t*CFO_t+\beta_{28} GSCORE_t+\beta_{29} GSCORE_t*DCFO_t+\beta_{30} GSCORE_t*CFO_t+\beta_{31} GSCORE_t*DCFO_t*CFO_t+Control\ Variables+\varepsilon_t \quad (5)$$

OWNOFF, OWNDIR, OWNAFLIN, and OWNESOP, and OWNOUT represent average or unexpected average ownership of blockholders in category 1 through 5, respectively. The control variables include LMTB, LSIZE, LLEV, and their interactions with D, R, and D*R, the other IOS variables specified in model 3 as well as fixed firm and year effects. All the variables are as defined in Table 1. Results based on two specifications are reported in each panel. Specification 1 (specification 2) uses the average (unexpected average) ownership of each type of blockholders. The unexpected average ownership of each type of blockholders is estimated based on model 3 using the average ownership of each type of blockholders as the dependent variable.

*, **, and *** denote significance of coefficients at the 10%, 5% and 1% levels respectively, using a two tailed test. The variable of interest is highlighted in bold.

6.2. Alternative measures of conditional conservatism

In this section, I examine whether my results are sensitive to two alternative measures of conditional conservatism: earnings skewness SKW (e.g., Givoly and Hayn 2000; Beatty et al. 2008; Zhang 2008) and the conservatism ratio CR (Callen et al. 2010). Zhang (2008) suggests that the lower verification requirement for losses induces negatively skewed earnings when these losses are recognized in earnings, and the skewness of earnings should be deflated by the skewness of cash flows to control for the variation in firm performance. Following Zhang (2008), SKW is defined as the skewness of earnings divided by the skewness of cash flows, measured over a three-year period centered on year t, and multiplied by negative one.

CR captures the extent to which the total shock to current and expected future earnings is recognized in current year earnings. The disadvantage of using CR is the reduction in the sample size mainly due to the elimination of observations with negative CR. Consistent with Callen et al. (2010), the following VAR model is estimated to compute CR.

$$R_t = \alpha_1 R_{t-1} + \alpha_2 ROE_{t-1} + \alpha_3 BM_{t-1} + \eta_{1t} \quad (6)$$

$$ROE_t = \beta_1 R_{t-1} + \beta_2 ROE_{t-1} + \beta_3 BM_{t-1} + \eta_{2t} \quad (7)$$

$$BM_t = \delta_1 R_{t-1} + \delta_2 ROE_{t-1} + \delta_3 BM_{t-1} + \eta_{3t} \quad (8)$$

R equals the log of one plus the annual return ending three months after the fiscal year end minus the log of one plus the annualized three-month T-bill rate. ROE is the log of one plus return on equity minus the log of one plus the annualized three month T-bill rate, where return on equity is computed as income before extraordinary items scaled by the beginning book value of equity. BM equals the log of the book-to-market ratio at the fiscal year end. Following Callen et al. (2010), I delete financial firms (SIC 6000-6999) and observations in the top and bottom 1% of each variable. All the variables are also demeaned. To control for industry effects, the VAR system is estimated for each Fama and French industry group using weighted least squares with weights equal to the number of firms in each industry-year combination. Finally, observations with negative CR are deleted, since negative CR raises interpretation issues. This procedure reduces the sample size to 2,596 observations and 775 firms. $CR_t = \eta_{2t}/Ne_t$, where η_{2t} is the earnings surprise from model 7, and $Ne_t = e2'(I-\rho A)^{-1}\eta_t$. $e2'$ is a vector equal to (0, 1, 0), I is the identity matrix, ρ is a constant equal to 0.967, A is the matrix of estimated coefficients from the VAR system, and $\eta_t = [\eta_{1t}, \eta_{2t}, \eta_{3t}]'$.

Following prior literature (e.g., Callen et al. 2010; Lara et al. 2012), I use the quartile ranks of SKW and CR to reduce the measurement error and conduct the empirical analysis. Using quintile or decile ranks does not change my results qualitatively. The following model is used to examine the effects of blockholders on earnings skewness and the conservatism ratio.

$$CON_t = \beta_0 + \beta_1 OWNOUT_t + \beta_2 OWNOFF_t + \beta_3 OWNDIR_t + \beta_4 OWNAFLIN_t + \beta_5 OWNESOP_t + \beta_6 INST_t + \beta_7 GSCORE_t + Control\ Variables + \varepsilon_t \quad (9)$$

CON_t is either the quartile rank of earnings skewness (SKWR) or the quartile rank of the conservatism ratio (CRR).[13] OWNOUT, OWNOFF, OWNDIR, OWNAFLIN, and OWNESOP are either the total ownership or average ownership of blockholders who are outsiders, officers, non-officer directors, affiliated blockholders, and ESOP-related blockholders, respectively. The control variables include all the independent variables specified in model 3 as well as fixed firm and year effects. β_1 measures the effect of outside blockholders' ownership on CON and is expected to be positive.

Table 7 reports the effects of outside blockholders' ownership on SKWR and CRR based on model 9. When the total ownership of each type of blockholders is used, the coefficient on OWNOUT is positive (coefficient = 0.149 and t-statistic = 1.86 if SKWR is used as the dependent variable; coefficient = 0.124 and t-statistic = 2.32 if CRR is used as the dependent variable). The results are consistent with those reported in Tables 4 and 5 and suggest that outside blockholders demand conservative financial reporting.

When the average ownership of each type of blockholders is used, the coefficient on OWNOUT is positive (coefficient = 0.574 and t-statistic = 2.98 if SKWR is the dependent variable; coefficient = 0.225 and t-statistic = 2.02 if CRR is the dependent variable). The results are consistent with those reported in Table 6 and suggest that decreasing the number of outside blockholders while holding the total ownership of outside blockholders constant may help enhance conservative financial reporting.[14]

[13] The mean of SKW is 0.06 and the mean skewness of earnings is -0.27 (unreported), suggesting that earnings are negatively skewed on average for the sample firms. This is consistent with the presence of conditional conservatism.

[14] Untabulated results indicate that financial leverage (LLEV) is positively associated with both SKWR and CRR, consistent with the view that the higher the financial leverage, the greater the demand for conditional conservatism by debt holders. Consistent with Callen and Segul (2010), CRR is positively associated with LMTB, but negatively associated with LSIZE.

Table 7. The effects of block ownership on earnings skewness and the conservatism ratio

	Dependent Variable: SKWR				Dependent Variable: CRR			
	(1) Total ownership		(2) Average ownership		(1) Total ownership		(2) Average ownership	
	Coeff.	t-statistics	Coeff.	t-statistics	Coeff.	t-statistics	Coeff.	t-statistics
SUMOUT	**0.149**	**(1.86)***	**0.574**	**(2.98)*****	**0.124**	**(2.32)****	**0.225**	**(2.02)****
SUMOFF	0.191	(0.71)	0.408	(1.35)	0.053	(0.53)	0.053	(0.44)
SUMDIR	0.255	(0.83)	0.365	(1.13)	0.154	(0.99)	0.250	(1.39)
SUMAFLIN	0.087	(0.42)	-0.124	(-0.51)	-0.083	(-0.85)	-0.134	(-1.28)
SUMESOP	-0.512	(-1.28)	-0.452	(-1.12)	-0.593	(-2.94)***	-0.609	(-2.94)***
INST	0.140	(1.04)	0.187	(1.39)	0.126	(0.89)	0.144	(1.03)
GSCORE	0.011	(1.03)	0.009	(0.88)	0.003	(1.05)	0.003	(0.93)
Control variables	Yes		Yes		Yes		Yes	
Adj. R^2	0.108		0.111		0.105		0.104	

Table 7 reports the effects of total and average block ownership on earnings skewness and the conservatism ratio, based on the following regression:

$$CON_t = \beta_0 + \beta_1 OWNOUT_t + \beta_2 OWNOFF_t + \beta_3 OWNDIR_t + \beta_4 OWNAFLIN_t + \beta_5 OWNESOP_t + \beta_6 INST_t + \beta_7 GSCORE_t + Control\ Variables + \varepsilon_t \quad (9)$$

CON_t is either the quartile rank of earnings skewness (SKWR) or the quartile rank of the conservatism ratio (CRR). OWNOUT, OWNOFF, OWNDIR, OWNAFLIN, and OWNESOP are either the total ownership or average ownership of blockholders who are outsiders, officers, non-officer directors, affiliated blockholders, and ESOP-related blockholders, respectively. The control variables include all the independent variables specified in model 3 as well as fixed firm and year effects.

*, **, and *** denote significance of coefficients at the 10%, 5% and 1% levels respectively, using a two tailed test. The variable of interest is highlighted in bold.

6.3. Direction of causality

The previous analysis implicitly assumes that higher outside blockholders' ownership leads to more conservative financial reporting. However, it is possible that outside blockholders are attracted to firms with more conservative financial reporting and thus induce a positive association between outside blockholders' ownership and conditional conservatism. Following Lara et al. (2009), I perform the Granger test (Granger 1969) using both levels models and changes models to examine the causal relationship between outside blockholders' ownership and conditional conservatism. The results based on levels models are similar to those based on changes models. I focus on presenting results from changes models, since changes models are less likely to be affected by correlated omitted variables and non-stationarity in time series.

Since the Granger test requires time series of firm-specific conservatism measures, I use firm-specific asymmetric timeliness (CSCORE) as developed by Khan and Watts (2009) and earnings skewness to examine the causal relationship between outside blockholders' ownership and conditional conservatism (The literature finds that the results based on CSCORE are consistent with those based on other measures of conditional conservatism (e.g., Lafond and Watts 2008; Ahmed and Duellman 2012)). The following cross-sectional regression model is estimated annually to calculate firm-specific asymmetric timeliness for each year.

$$NI_i = \beta_1 + \beta_2 D_i + R_i(\mu_1 + \mu_2 Size_i + \mu_3 MTB_i + \mu_4 LEV_i) + D_i{*}R_i(\lambda_1 + \lambda_2 SIZE_i + \lambda_3 MTB_i + \lambda_4 LEV_i) + (\delta_1 SIZE_i + \delta_2 MTB_i + \delta_3 LEV_i + \delta_4 D_i{*}SIZE_i + \delta_5 D_i{*}MTB_i + \delta_6 D_i{*}LEV_i) + \varepsilon_i \quad (10)$$

SIZE is defined as the natural log of the market value of equity at the end of the fiscal year. MTB is the market-to-book ratio at the end of the fiscal year. LEV is financial leverage, calculated as total debt divided by total assets, measured at the end of the fiscal year. The other variables are as defined in Table 1. The coefficient estiamtes from model 10 are then applied to the following equation to compute CSCORE.

$$CSCORE_i = \lambda_1 + \lambda_2 SIZE_i + \lambda_3 MTB_i + \lambda_4 LEV_i \quad (11)$$

I use the following system of equations to investigate the direction of causality between outside blockholders' ownership and conditional conservatism.

$$\Delta CON_t = \alpha_0 + \alpha_1 \Delta CON_{t-1} + \alpha_2 \Delta CON_{t-2} + \alpha_3 \Delta SUMOUT_{t-1} + \alpha_4 \Delta SUMOUT_{t-2} + \alpha_5 \Delta SUMOFF_{t-1} + \alpha_6 \Delta SUMDIR_{t-1} + \alpha_7 \Delta SUMAFLIN_{t-1} + \alpha_8 \Delta SUMESOP_{t-1} + \alpha_9 \Delta INST_{t-1} + \alpha_{10} \Delta GSCORE_{t-1} + Control\ Variables_{t-1} + \varepsilon_t \quad (12)$$

$$\Delta SUMOUT_t = \beta_0 + \beta_1 \Delta CON_{t-1} + \beta_2 \Delta CON_{t-2} + \beta_3 \Delta SUMOUT_{t-1} + \beta_4 \Delta SUMOUT_{t-2} + \beta_5 \Delta SUMOFF_{t-} + \beta_6 \Delta SUMDIR_{t-1} + \beta_7 \Delta SUMAFLIN_{t-1} + \beta_8 \Delta SUMESOP_{t-1} + \beta_9 \Delta INST_{t-1} + \beta_{10} \Delta GSCORE_{t-1} + Control\ Variables_{t-1} + \upsilon_t \quad (13)$$

Δ represents the change in the following variables. CON represents either CSCORE or SKW. Table 8 reports the estimation results based on models 12 and 13. The results confirm the causal relation from outside blockholders' ownership to conditional conservatism. Specifically, when $\Delta CSCORE_t$ is used as the dependent variable, the coefficients on $\Delta SUMOUT_{t-1}$ and $\Delta SUMOUT_{t-2}$ are positive, suggesting that an increase in outside blockholder' ownership at time t-1 and t-2 is followed by an increase in CSCORE at time t. In contrast, when $\Delta SUMOUT_t$ is used as the dependent variable, the coefficients on both $\Delta CSCORE_{t-1}$ and $\Delta CSCORE_{t-2}$ are not significant, suggesting that a change in asymmetric timeliness at time t-1 or t-2 does not affect outside blockholders' ownership at time t. Similarly, the coefficient on $\Delta SUMOUT_{t-1}$ is positive when ΔSKW_t is used as the dependent variable, while the coefficients on both ΔSKW_{t-1} and ΔSKW_{t-2} are not significant when $\Delta SUMOUT_t$ is used as the dependent variable.

Furthermore, the F-tests indicate that we can reject the null hypothesis that both α_3 and α_4 in equation 12 equal zero, and that we cannot reject the null hypothesis that both β1 and β2 in equation 13 equal zero. Overall, the results reported in Table 8 are consistent with higher outside blockholders' ownership leading to more conservative fianncial reporting, but not vice versa.

Table 8. Granger tests of the association between outside blockholders' ownership and conditional conservatism Panel A: Estimation results

	CON = CSCORE				CON = SKW			
	Model (1) ΔCON_t		Model (2) $\Delta SUMOUT_t$		Model (1) ΔCON_t		Model (2) $\Delta SUMOUT_t$	
	Coeff.	t-statistics	Coeff.	t-statistics	Coeff.	t-statistics	Coeff.	t-statistics
ΔCON_{t-1}	-1.079	(-23.37)***	-0.051	(-1.38)	-0.554	(-28.53)***	0.000	(-1.01)
ΔCON_{t-2}	0.127	(2.42)**	-0.019	(-0.50)	-0.016	(-2.76)***	0.000	(0.73)
$\Delta SUMOUT_{t-1}$	0.089	(2.20)**	-0.629	(-19.18)***	14.627	(2.61)***	-0.624	(-19.05)***
$\Delta SUMOUT_{t-2}$	0.071	(1.78)*	-0.346	(-10.01)***	-1.502	(-0.27)	-0.339	(-9.86)***
$\Delta SUMOFF_{t-1}$	0.333	(1.91)*	0.044	(0.29)	17.305	(0.71)	0.054	(0.36)
$\Delta SUMDIR_{t-1}$	0.186	(1.06)	0.196	(1.25)	7.815	(0.32)	0.179	(1.15)
$\Delta SUMAFLIN_{t-1}$	0.170	(1.21)	0.034	(0.27)	25.564	(1.31)	0.030	(0.24)
$\Delta SUMESOP_{t-1}$	-0.136	(-0.82)	0.006	(0.06)	11.960	(0.53)	0.020	(0.17)
$\Delta INST_{t-1}$	0.119	(1.82)*	0.016	(0.33)	6.401	(0.69)	0.008	(0.18)
$\Delta GSCORE_{t-1}$	-0.002	(-0.28)	-0.009	(-0.93)	-2.013	(-1.74)*	-0.010	(-0.98)
Control variables	Yes		Yes		Yes		Yes	
No. of Observations	2,783							

Panel B: Tests of coefficients

	CON = CSCORE				CON = SKW			
	Model (1)		Model (2)		Model (1)		Model (2)	
Tests of coefficients	Test statistic	p-value	Test statistic	p-value	Test statistic	p-value	Test statistic	p-value
$\Delta CON_{t-1} = \Delta CON_{t-2} = 0$	414.29	0.000	0.97	0.378	409.32	0.000	1.22	0.294
$\Delta SUMOUT_{t-1} = \Delta SUMOUT_{t-2} = 0$	2.86	0.058	187.25	0.000	4.55	0.011	184.78	0.000

Table 8 presents the causal relationship between outside blockholders' ownership and conditional conservatism, using the following system of equations:

$$\Delta CON_t = \alpha_0+\alpha_1\Delta CON_{t-1}+\alpha_2\Delta CON_{t-2}+\alpha_3\Delta SUMOUT_{t-1}+\alpha_4\Delta SUMOUT_{t-2}+\alpha_5\Delta SUMOFF_{t-1}+\alpha_6\Delta SUMDIR_{t-1}+\alpha_7\Delta SUMAFLIN_{t-1}+\alpha_8\Delta SUMESOP_{t-1}+\alpha_9\Delta INST_{t-1}+\alpha_{10}\Delta GSCORE_{t-1}+Control\ Variables_{t-1}+\varepsilon_t \quad (12)$$

$$\Delta SUMOUT_t=\beta_0+\beta_1\Delta CON_{t-1}+\beta_2\Delta CON_{t-2}+\beta_3\Delta SUMOUT_{t-1}+\beta_4\Delta SUMOUT_{t-2}+\beta_5\Delta SUMOFF_{t-}+\beta_6\Delta SUMDIR_{t-1}+\beta_7\Delta SUMAFLIN_{t-1}+\beta_8\Delta SUMESOP_{t-1}+\beta_9\Delta INST_{t-1}+\beta_{10}\Delta GSCORE_{t-1}+Control\ Variables_{t-1}+\upsilon_t \quad (13)$$

Δ represents the change in the following variables. CON represents either CSCORE or SKW. The control variables include all the independent variables specified in model 3 as well as fixed firm and year effects. All the variables are as defined in Table 1. *, ** and *** denote significance of coefficients at the 10%, 5% and 1% levels respectively, using a two tailed test.

7. Conclusion

This study examines the effects of the ownership of outside blockholders on conditional conservatism. I find that conditional conservatism is positively associated with the ownership of outside blockholders, consistent with the view that large shareholders address agency problems due to their general interest in profit maximization and enough control over firm assets (Shleifer and Vishney 1997). In addition, I also document a positive association between conditional conservatism and the average ownership of outside blockholders, consistent with the view that holding the sum of the stakes by blockholders equal, additional blockholders induce free-riding problem and increase coordination and communication costs. Additional analysis suggests that outside blockholders' ownership leads to conditional conservatism, but not vice versa.

Overall, the results are consistent with the view that outside blockholders demand conservative financial reporting and conditional conservatism is a useful governance tool for outside blockholders to fulfill their monitoring role. My results, however, should be interpreted with caution. Since the blockholder database constructed by Dlugosz et al. (2006) only includes blockholder information from 1996 to 2001, my finding are based upon the corporate governance system in the pre-SOX period. The literature (e.g., Lara et al. 2009) suggests that the association between conditional conservatism and outside blockholders' ownership may be further strengthened in the post-SOX period. An interesting question left for future research is whether and how the SOX may change the effects of blockholders on conditional conservatism.

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