Accounting Conservatism and the Profitability of Corporate Insiders[*]

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Abstract

We predict that accounting conservatism influences insiders' opportunities to speculate on good and bad news, and thus, insider trading profitability. We find that greater conditional (unconditional) conservatism is associated with lower (higher) insiders' profitability from sales. We find limited evidence that conservatism influences profitability from purchases. These findings are consistent with our hypotheses on the different informational roles of conditional and unconditional conservatism, and on the asymmetric influence of conservatism over the opportunities to speculate on good *versus* bad news. Our research design takes into consideration the endogenous nature of insiders' trading and conservatism. The results are robust to different measures of conservatism and a number of additional analyses.

Keywords: *conditional conservatism, unconditional conservatism, insider trading sales and purchases, profitability from insider trading.*

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1 Introduction

We examine the association between conservatism and insider-trading profitability from sales and purchases. We argue that firm-level accounting conservatism influences transparency and thus, the opportunities available for insiders to speculate on good and bad news. Our main focus is on conditional conservatism as it systematically affects the timeliness of good and bad news recognition. Conditional conservatism refers to the asymmetric verifiability requirements for the recognition of economic gains *versus* losses, which results in earnings that capture unfavourable economic events more quickly and completely than favourable events (Basu 1997), leading to asymmetric persistence of good and bad news.[1]

Prior literature usually regards conditional conservatism as a desirable property of accounting numbers, which results in high quality information useful to monitor management (Beekes et al. 2004; Ahmed and Duellman 2007, 2011; Louis et al. 2012; Mora and Walker 2015). We build on this literature and argue that conditional conservatism reduces insiders' trading profitability. Two key assumptions underpin our prediction. First, that insiders can earn abnormal returns by exploiting private information (Seyhun 1986; Jagolinzer et al. 2011). Second, that conditional conservatism is positively associated with decreases in information asymmetry (Francis et al. 2013; LaFond and Watts 2008) and that it acts as a corporate governance mechanism that disciplines opportunistic decision-making, offsetting managerial tendency to hide bad news and accelerate good news recognition (Watts 2003).

In particular, given that conditional conservatism leads to timely and complete bad news recognition, when conservatism is high, we expect a reduction in insiders' opportunities to speculate on negative news. This should result in lower insiders' profitability from sales. In contrast, the prediction on the effect over the profitability from purchases is not as straightforward. On the one hand, conditional conservatism imposes higher verification

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1. Conservatism can be classified as conditional or unconditional (Ball and Shivakumar 2005; Beaver and Ryan 2005). Unconditional conservatism refers to the persistent understatement of net assets which results in unrecognised goodwill (of unknown magnitude). It is the result of news independent conservative accounting at the inception of assets and liabilities (Basu 2005; Ryan 2006).

standards for the recognition of economic gains (Basu 1997). This means that gains are recognized as the associated cash flows are realized (thus, often with a lag), and could lead investors to make incorrect inferences regarding firm's prospects. Then, conservatism would create opportunities for insiders to speculate on positive news, increasing profitability from purchases. On the other hand, prior work shows that conditional conservatism ameliorates the firm information environment, improving transparency. Conditional conservatism is associated with improvements to corporate governance, lowering the incentives for opportunistic managerial behaviour (Watts 2003; Gao 2013), and enhancing the confirmatory role of accounting, disciplining good news disclosure and increasing its credibility (Ball 2001; Garcia Osma et al. 2018). Then, conditional conservatism would act as a disciplining mechanism that leads to truthful disclosure of good news (Guay and Verrecchia 2007; LaFond and Watts 2008), reducing the opportunities to speculate on good news.

We test our predictions on a large sample of U.S. firms over the period 2003 to 2014. To measure insiders' profitability, we focus on opportunistic insiders' sale and purchase transactions aggregated at a firm-day level, following Jagolinzer et al. (2011). We classify firms as having high (low) profitability if they earn (do not earn) abnormal returns from their transactions. To ensure the robustness of our results, we measure conservatism using two different proxies. The first one is the market-based in cross-section (Basu 1997), and the second firm-specific (Khan and Watts 2009). Both of the measures are modified following Banker et al. (2016). In addition, to address potential endogeneity issues, we run changes analyses and study the effect of an exogenous shock to conservatism: the mandatory adoption of SFAS-142. For robustness, we examine whether our results are robust to different categories of insiders (CEO and CFO, Top-5 insiders, and all other officers and directors). Finally, we study the impact of unconditional conservatism on insiders' profitability.

We report the following key findings. First, our results indicate timelier recognition of bad news in firms where insiders have lower profitability from sales. We find no systematic evidence of an effect over the profitability from purchases. This reduces the concerns that

conditional conservatism delays the recognition of good news resulting in higher information asymmetry. In contrast, we find unconditional conservatism is associated with greater profitability from insiders' sales. Unconditional conservatism results in an understatement of net assets that is news independent (Beaver and Ryan 2005), and may prevent the recognition of future negative news in a timely manner (Basu 2001). Our finding is consistent with the view in Ball and Shivakumar (2005) and Basu (2005) that unconditional conservatism is uninformative and largely exists to circumvent taxes and regulation. Finally, we show that the relation between conditional conservatism and insiders' profitability is sensitive to the constraining effect of unconditional conservatism (Sunder et al. 2018). Because unconditional conservatism pre-empts the recognition of future bad news, it lowers the negative effect of conditional conservatism on insiders' profitability. Our results are robust to the use of different measures for insider trading and conditional and unconditional conservatism, to the inclusion of additional control variables and to a battery of robustness tests.

Put together, our results contribute to several streams of the literature. We contribute to the literature on insider trading by showing that conditional conservatism reduces the ability of insiders to speculate on private information. This adds to the work that evidences negative effects associated with insider trading (e.g., Ausubel 1990; Easley et al. 1996; Bernardo 2001; Cheng and Lo 2006; Ellul and Panayides 2018) and suggests conservatism may act as a mechanism against insiders' opportunistic behaviour, limiting speculation on negative news. In contrast, we show that unconditional conservatism triggers greater insiders' profitability from sales, consistent with the view that it increases information asymmetry. Our evidence has policy implications, as it suggests that greater conditional conservatism may increase price informativeness and lower information asymmetry. Ultimately, more effcient prices benefit society as they lead to a more efficient allocation of resources. Therefore, we also add to the literature on the positive economic consequences of conditional conservatism (e.g., Ahmed et al. 2002; Ahmed and Duellman 2007, 2011; Zhang 2008; Francis and Martin 2010; Louis et al. 2012; Francis et al. 2013; Garcia Lara et al. 2014; Kim and Zhang 2016).

2   Literature Review and Hypothesis Development

Insiders often earn abnormal returns when trading on their own firms by exploiting private information (Seyhun 1986; Rozeff and Zaman 1988; Lakonishok and Lee 2001; Marin and Olivier 2008; Jagolinzer et al. 2011). While insider trading may accelerate the resolution of uncertainty, increasing stock price informativeness (Leland 1992), and spurning the generation, processing, and communication of private information (Ronen 1977), recent work generally highlights its negative effects. This research suggests that insider trading may not be Pareto optimal (Ausubel 1990), that it increases cost of capital (Easley and O' Hara 2004), and lowers liquidity and firm value (Masson and Madhavan 1991; Easley et al. 1996). We add to this literature by examining the role of accounting conservatism in influencing insiders' opportunities to speculate on good and bad news and by proposing conditional conservatism as a plausible mechanism that limits the negative effects of insider trading.

Conservatism is largely non-discretionary and determined by accounting regulation (Lawrence et al. 2013), taxation, litigation risk, and innate firm characteristics, such as firm size, capital structure or growth opportunities (Watts 2003; Roychowdhury and Watts 2007; Qiang 2007; Khan and Watts 2009), making it fairly exogenous to the current generation of managers.[2] Concerns exist that conservatism may lead to inefficient decision-making because of the bias it introduces in financial reporting (Guay and Verrecchia 2006; Gigler et al. 2009).[3] However, most of the existing work concludes that conditional conservatism is an efficient mechanism associated with a number of positive economic consequences (Watts 2003; Mora and Walker 2015; Ruch and Taylor 2015). In line with this latter literature, we present a bright side of conditional conservatism, acting as a tool against opportunistic behaviour of insiders in speculating on negative economic news. Particularly, we argue that

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2. Discretion also exists in conservatism. An ample literature provides evidence of cross-sectional variation in conservatism, driven by changes in regulation and firm determinants, as well as by firm-level choices linked both to managerial decision-making and to pressures from boards of directors, auditors, creditors and other stakeholders (see, e.g. Watts 2003; Mora and Walker 2015; Ruch and Taylor 2015).

3. These criticisms are usually focused on unconditional conservatism (Ball and Shivakumar 2005).

conditional conservatism mitigates information asymmetries between outsiders and insiders through timelier recognition of losses. Timely loss recognition also enhances the confirmatory role of accounting, disciplining good news disclosure. In contrast, we expect that unconditional conservatism introduces a bias into financial statements that results in higher information asymmetry and higher insiders' profitability. We develop our arguments next.

2.1 Conditional conservatism and the opportunities of insiders to speculate on good and bad news

Managers are reluctant to disclose negative firm information (Kothari et al. 2009), and are likely to strategically accelerate the release of good news and to withhold or delay bad news disclosure.[4] Bad news hoarding engenders crash risk (Hutton et al. 2009), and allows firms to continue investing in poor projects, leading to greater losses on abandonment (Ahmed and Duellman 2011; Francis and Martin 2010). However, absent any mechanism that counters the incentives for strategic disclosure, insiders may knowingly hide bad performance and disclose unverifiable information about potential future growth, to retain their informational advantage and maximize their profits from insider trading. We predict that conditional conservatism reduces insiders' opportunities to trade on bad news for the following reasons.

First, by imposing lower verification requirements for the recognition of negative news (possible economic losses) relative to positive news, conditional conservatism leads to timely and complete dissemination of negative information that managers would otherwise withhold (Basu 1997; Watts 2003; Kothari et al. 2010). This disciplines insiders opportunistic behaviour by offsetting managerial tendency to disclose information strategically. As a result, bad news flows into the market more quickly than unverifiable good news, reducing the risk that bad news will be hidden and accumulate (LaFond and Watts 2008; Kim and Zhang 2016), thereby reducing insiders' opportunities to profitably trade on bad news information.

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4. As noted in Kim and Zhang (2016), this behaviour can be explained by the existence of a variety of incentives linked to earnings- and equity-based compensation, reputation, career concerns, etc.

A growing body of research provides evidence consistent with this view that conservatism reduces the information asymmetry between insiders and outsiders (LaFond and Watts 2008; Garcia Lara et al. 2014). For example, Francis et al. (2013), and Kim and Zhang (2016) find that through a decrease in information asymmetry, conservatism mitigates negative market reactions to bad news (economic losses) and reduces crash risk. Further evidence consistent with conditional conservatism leading to improvements in information quality that ameliorate the information environment and allow investors to better assess firm performance is provided in papers that show its association with lower cost of equity (Garcia Lara et al. 2011; Li 2015), lower cost of debt, and better assessment of default risk for lenders (Wittenberg-Moerman 2008; Zhang 2008). Thus, we expect that conditional conservatism limits the informational advantage of insiders. Reduction in information asymmetry is an important mechanism to reduce insiders' profitability (e.g., Aboody and Lev 2000).

Second, beyond this direct effect, a number of scholars have linked conditional conservatism to different firm attributes that, in turn, can have an impact on insiders' trading practices and profitability. For instance, prior work shows that conditional conservatism lowers agency conflicts and is associated with improvements in firm corporate governance and greater institutional ownership (Beekes et al. 2004; Ahmed and Duellman 2007; Ramalingegowda and Yu 2012). This evidence links with prior work on the profitability of insider trading, which indicates that, on average, better-governed firms have lower profitability of insider sales (Dai et al. 2016), and that greater institutional ownership is negatively related with the profitability of insider trading (Bricker and Markarian 2015).

Further channels through which conservatism may affect insider trading include reductions in earnings management (Basu 1997; Watts 2003; Guay and Verrecchia 2006; Chen et al. 2007; Gao 2013), which should decrease insider-trading profitability since more profitable trades are possible in firms with greater levels of earnings management (Summers and Sweeney 1998; Sawicki and Shrestha 2008; Kraft et al. 2014). Finally, conservatism improves investment efficiency (Francis and Martin 2010; Bushman et al. 2011; Ahmed and Duellman

2011; Louis et al. 2012; Garcia Lara et al. 2016). Under conditional conservatism, managers cannot defer the recognition of losses. This disciplines managers *ex ante* and reduces the likelihood of investment in poorly performing projects. Conditional conservatism also improves investment efficiency *ex post*, by imposing timely disclosure of poor realizations of ongoing investments, and triggering the early abandonment of poor projects. Overall, this results in lower investment in negative NPV projects, which also alleviates possible information asymmetry coming from managers who try to withhold negative information about their investments. Lower investment in poor projects should lead to a reduction of opportunistic speculation on negative information from insiders.

Given the previously reviewed evidence, we expect that conditional conservatism limits insiders' opportunities to speculate on bad news. Therefore, our first hypothesis is:

> **H1:** *Conditional conservatism reduces insiders' opportunities to earn abnormal returns on negative news, which leads to a lower profitability from sales.*

Regarding good news, conditional conservatism imposes higher verification thresholds for the recognition of economic gains (Basu 1997; Watts 2003). This means that the prediction on the effects of conditional conservatism on insiders' opportunities to speculate on positive news is not as straightforward. On the one hand, conditional conservatism may also reduce insiders' opportunities to exploit their informational advantage with regards to good news for at least two reasons. First, conditional conservatism enhances the confirmatory role of accounting information, acting as a 'hard' benchmark to evaluate the credibility of alternative sources of information (LaFond and Watts 2008), such as unverifiable good news disclosures and management forecasts. This confirmatory role disciplines good news disclosure through *ex post* accountability (Ball 2001; Ball et al. 2012). Then, conditional conservatism allows other 'softer' sources of information to flourish (LaFond and Watts 2008), lending credibility to good news disclosure and permitting attaining full disclosure (Guay and Verrecchia 2007). Consistent with this view, Garcia Osma et al. (2018) show that conditional conservatism is associated with greater frequency and credibility of good news management

forecasts. Second, all the previously documented mechanisms that are linked to greater conditional conservatism (i.e., better quality corporate governance, greater institutional investor ownership, or lower earnings management) would also hold for the recognition of good news, also reducing information asymmetry with respect to positive economic outcomes.

However, on the other hand, the lower timeliness of good news recognition can lead to incorrect inferences regarding a firm's prospects from the side of investors. In particular, the FASB (2005; 2010) has argued that conservatism may trigger information asymmetry between informed and uninformed equity investors.[5] In this regard, higher verification standards for the recognition of positive news could lead to delays in revealing unverifiable economic gains, and thus, to information asymmetry that would grant opportunities for insiders to speculate on positive news. A number of studies provide evidence that even sophisticated users of financial statements, such as analysts, do not fully understand conservatism (Helbok and Walker 2004; Pae and Thornton 2010), giving credence to this view.[6]

Thus, ultimately, the link between conservatism and the opportunities to speculate on a firm's good news is an empirical question. Following the aforementioned discussion, we propose to test the following second hypothesis:

> **H2:** *Conditional conservatism reduces insiders' opportunities to earn abnormal returns on positive news, which leads to a lower profitability from purchases.*

2.2 Unconditional conservatism and insider trading profitability

Unconditional conservatism refers to the persistent understatement of the book value of net assets (Beaver and Ryan 2005), and is often viewed as introducing a bias of unknown magnitude into financial statements (Ball and Shivakumar 2005) and thus, as garbling the earnings signal and increasing information asymmetry. A classical example would be the immediate

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5. Admittedly, this concern applies mostly to unconditional conservatism, but extends to conditional conservatism. In contrast to this position, the IASB, in recent years, has began walking back their objections to conditional conservatism (IASB 2018 Revised Conceptual Framework).

6. In addition, prior evidence would suggest markets do not always understand the links between accounting choices and earnings persistence (Sloan 1996; Lev and Nissim 2006).

expensing of R&D costs. Under SFAS 2 *Accounting for Research and Development Costs*, all R&D outlays are considered expenses, independent of whether they represent successful innovations or not. Insiders could be better informed about the future profitability associated with such investments, whilst investors would only observe the annual R&D expense in the financial statements.[7]

Given this, we argue that conditional and unconditional conservatism have different effects on financial statements transparency, and particularly, over the timing of accounting recognition. While the principal mechanism of conditional conservatism is its timely reaction to negative news, unconditional conservatism is news independent and prevents timely loss recognition (Beaver and Ryan 2005; Pope and Walker 2002; Pae et al. 2005; Roychowdhury and Watts 2007). Also, it leads to potential over-reporting of losses which may never be realized. Indeed, unconditional conservatism may provide opportunities for earnings management, as it can result in the creation of 'cookie jar' reserves, that can be used to artificially increase earnings when past understatements reverse (Ball et al. 2000; Jackson and Liu 2010). In addition, prior understatement of asset values (as a result of unconditional conservatism), restrains the firm future ability to record losses in a timely manner (Basu 2001, 2005, Giner and Rees 2001, Beaver and Ryan 2005, Pae et al. 2005). This means that more unconditionally conservative firms have a constraint in signalling future negative economic events (Sunder et al. 2018). Given this, it is likely that insiders can profitably trade on negative information in more unconditionally conservative firms. Formally stated:

> **H3:** *Unconditional conservatism increases insiders' opportunities to earn abnormal returns on negative news, which leads to a greater profitability from sales.*

Regarding positive news, under unconditional conservatism, asset values are expected to present their lower bound estimates. This restrains the signalling of potential good news, increasing information asymmetry (Ball and Shivakumar 2005). If negative news are not

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7. Alternative sources of information, such as analysts recommendations or management forecasts, would of course be available both in the described expensing scenario, as well as in a capitalizing scenario, to complement financial statements.

realized, unconditional conservatism could benefit insiders: knowing that the assets are undervalued in financial statements, insiders can purchase the stock and sell it in the future. However, the problem with this strategy is that even for insiders it would be difficult to time the unravelling of prior conservatism. It is not trivial to track when the company is going to realize gains as conservatism is a 'sticky' policy and partially embedded into accounting frameworks. Firms may smooth realizations of earnings through time (lowering volatility in share prices). Contrary, they may realize earnings all at once. This would increase stock price. Thus, potentially, firm-insiders with perfect foresight and decision-rights on the timing of earnings realizations might profit from unconditional conservatism. This leads us to our final hypothesis:

> **H4:** *Unconditional conservatism increases insiders' opportunities to earn abnormal returns on positive news, which leads to a greater profitability from purchases.*

3   Research Design

3.1   Computation of insider trading

Following Cohen et al. (2012) we separate insiders into two categories: routine and opportunistic, and consider only "opportunistic" insiders in our analyses. Routine insiders are those who trade based on liquidity or other needs, and are identified as those who trade in the same month for at least three consecutive years. All other insiders are classified as opportunistic. Thus, at the beginning of each year, insiders are classified into one of these two categories based on their trading history.[8] We hypothesize that if insiders' consistently earn profits on their trades, this should signal that those trades are based on private (non-public) information. To compute insider trading profitability we follow Jagolinzer et al. (2011). More specifically, we estimate the following four-factor Fama and French (1993)

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8. We extend our sample size to 1992 to segregate insiders into these two groups. This is done to preserve the sample size.

and Carhart (1997) model over 180 days after each transaction (sale and purchase).[9]

$$R_i - R_f = \alpha + \beta_1(R_{mrt} - R_f) + \beta_2 SMB + \beta_3 HML + \beta_4 UMD + \epsilon_t, \tag{1}$$

where R_i is firm's i daily return, R_f is the daily risk-free interest rate, R_{mrt} is market return, and SMB, HML and UMD are the Size, Book-to-Market and Momentum factors. Finally, α is the average daily risk-adjusted positive return for insider purchases. Conversely, -α represents profitability for insider sales. Appendix 7, Table 1 provides a replication of Jagolinzer et al. (2011) that validates our method to calculate insiders' profitability from sales and purchases. To come to firm-wide net transactions we separately account for daily net transactions of all officers and directors.

3.2 Measurement of accounting conservatism

3.2.1 Conditional conservatism using Basu (1997)

In our first set of tests, to examine the links between conditional conservatism and insiders' profitability from sales and purchases, we use Basu's (1997) model as modified by Banker et al. (2016). These authors argue that the timelier recognition of bad news relative to good news as measured by Basu (1997) can arise from a fundamentally different source - cost stickiness.[10] Banker et al. (2016) show that controlling for sticky costs reveals that conservatism estimates (as used in the extant prior research, such as in Basu (1997), Ball et al. (2013), or Collins et al. (2014)) are biased more than 25%. Thus, we follow their method in our first set of tests, modifying Basu's (1997) model to account for cost stickiness.

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9. Following prior literature, we compute abnormal returns over a six-month horizon (Jagolinzer et al. 2011; Skaife et al. 2013). This is because there is a penalty for profits earned on trades made fewer than 180 days subsequent to prior trades ("short-swing" rule: Section 16(b) of the Securities and Exchange Act of 1934). In robustness tests, we calculate insider's profitability over a one-year period (instead of 180 days). Our main inferences are retained.

10. In particular, to avoid adjustment and disposal costs that are associated with the alteration of firms' operations, managers retain some unused resources when sales fall. Correspondingly, when sales rise, managers are in need to add additional resources to meet the demand. Given these features, there is an asymmetric behaviour of costs that can distort inferences about the level of conservative reporting.

The full model is as follows:

$$E_{i,t}/P_{i,t-1} = \beta_0 + \beta_1 DR_{i,t} + \beta_2 RET_{i,t} + \beta_3 DR_{i,t} \times RET_{i,t} + \beta_4 DS_{i,t}$$
$$+ \beta_5 \Delta S_{i,t}/P_{i,t-1} + \beta_6 DS_{i,t} \times \Delta S_{i,t}/P_{i,t-1} + \epsilon_{i,t}, \tag{2}$$

where $E_{i,t}/P_{i,t-1}$ is earnings in year t scaled by the market value of equity at the beginning of the fiscal year. RET is the compounded market-adjusted CRSP stock return over the fiscal year t. DR is a dummy variable that equals one if RET is negative (i.e., in the case of bad news) and zero otherwise (i.e., good news). DS is a dummy variable that is equal to one if there is a decrease in sales from year $t-1$ to t and zero otherwise. $\Delta S_{i,t}/P_{i,t-1}$ is the change in sales from year $t-1$ to year t that is scaled by the market value of equity at the beginning of the fiscal year, and ϵ is an error term. Appendix A contains further details on the calculations and definitions of all variables.

In $Eq.(2)$ the β_2 coefficient captures the timeliness of good news recognition, while β_3 measures the asymmetric timeliness of bad news recognition relative to good news, and captures the incremental timeliness of bad news. The sum of β_2 and β_3 measures the total timeliness of bad news recognition. In the presence of conservatism, β_3 is expected to be positive, significant and greater than β_2.

To assess whether there is an impact of accounting conservatism on corporate insiders' profitability, we follow extant prior research in conservatism and modify $Eq.(2)$ to include interaction terms with yearly average profitability of corporate insiders ($Profit$) and control variables associated with insider trading. Moreover, in line with the literature, we add a number of controls that are likely to affect profitability of insiders. In particular, we control for firm size, book-to-market ratio, return on assets and institutional ownership (Seyhun 1986; Rozeff and Zaman 1998; Lakonishok and Lee 2001; Piotroski and Roulstone 2005; Skaife et al. 2013; Bricker and Markarian 2015; Massa et al. 2015). To control for the firm information environment we use the number of analysts following the firm. The main

regression under consideration is as follows:

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\begin{aligned}
E_{i,t}/P_{i,t-1} = {} & \beta_0 + \beta_1 DR_{i,t} + \beta_2 Profit_{i,t+1} + \beta_3 DR_{i,t} Profit_{i,t+1} + \beta_4 RET_{i,t} \\
& + \beta_5 RET_{i,t} Profit_{i,t+1} + \beta_6 DR_{i,t} RET_{i,t} + \beta_7 DR_{i,t} RET_{i,t} Profit_{i,t+1} \\
& + \beta_8 DS_{i,t} + \beta_9 DS_{i,t} Profit_{i,t+1} + \beta_{10} \Delta S_{i,t}/P_{i,t-1} + \beta_{11} \Delta S_{i,t}/P_{i,t-1} Profit_{i,t+1} \\
& + \beta_{12} DS_{i,t} \times \Delta S_{i,t}/P_{i,t-1} + \beta_{13} DS_{i,t} \times \Delta S_{i,t}/P_{i,t-1} Profit_{i,t+1} + \beta_{14} X_{i,t} \\
& + \beta_{15} DR_{i,t} X_{i,t} + \beta_{16} RET_{i,t} X_{i,t} + \beta_{17} DR_{i,t} RET_{i,t} X_{i,t} + \beta_{18} DS_{i,t} X_{i,t} \\
& + \beta_{19} \Delta S_{i,t}/P_{i,t-1} X_{i,t} + \beta_{20} DS_{i,t} \times \Delta S_{i,t}/P_{i,t-1} X_{i,t} + \psi + \omega + \epsilon_{i,t},
\end{aligned}
\tag{3}
$$

where $X_{i,t}$ is a set of control variables as described above. $Profit$ is our measure of the profitability from sales or purchases. We expect to observe a difference in conditional conservatism between firms with high and low insiders' profitability. Under $H1$ and $H2$ we expect that β_7, which captures the incremental timeliness of loss recognition relative to gains, will be negative and significant. We also expect that the sum of β_5 and β_7, capturing the total timeliness of loss recognition will be different from zero. $Eq.(3)$ includes firm- fixed effects (ψ) to control for the cross-sectional correlation between the expected components of earnings and returns (Ball et al. 2013), and year- fixed effects (ω) to control for economy-wide temporal shocks. Standard errors are clustered by firm and year (Petersen 2009).

3.2.2 Conditional conservatism using Khan and Watts (2009)

Our second measure of conditional conservatism is based on the approach suggested by Khan and Watts (2009) that permits calculating a firm-year measure. Augmenting the Basu (1997) model, Khan and Watts (2009) relate timeliness of good news (referred to as G_Score) and incremental timeliness of bad news (referred to as C_Score) to firm-specific characteristics (size, market-to-book ratio, and leverage). In line with our above specification, we follow Banker et al. (2016) and modify Khan and Watts (2009) model to incorporate sticky costs

as follows:

$$
\begin{aligned}
E_{i,t}/P_{i,t-1} = {} & \alpha_0 + \alpha_1 DR_{i,t} + \alpha_2 RET_{i,t} + \alpha_3 DR_{i,t}RET_{i,t} \\
& + BM_{i,t-1} \times (\alpha_4 DR_{i,t} + \alpha_5 RET_{i,t} + \alpha_6 DR_{i,t}RET_{i,t}) \\
& + LEV_{i,t-1} \times (\alpha_7 DR_{i,t} + \alpha_8 RET_{i,t} + \alpha_9 DR_{i,t}RET_{i,t}) \\
& + SIZE_{i,t-1} \times (\alpha_{10} DR_{i,t} + \alpha_{11} RET_{i,t} + \alpha_{12} DR_{i,t}RET_{i,t}) \\
& + \gamma_1 BM_{i,t-1} + \gamma_2 LEV_{i,t-1} + \gamma_3 SIZE_{i,t-1} \\
& + \beta_1 DS_{i,t} + \beta_2 \Delta S_{i,t}/P_{i,t-1} + \beta_3 DS_{i,t} \times \Delta S_{i,t}/P_{i,t-1} \\
& + BM_{i,t-1} \times (\beta_4 DS_{i,t} + \beta_5 \Delta S_{i,t}/P_{i,t-1} + \beta_6 DS_{i,t} \times \Delta S_{i,t}/P_{i,t-1}) \\
& + LEV_{i,t-1} \times (\beta_7 DS_{i,t} + \beta_8 \Delta S_{i,t}/P_{i,t-1} + \beta_9 DS_{i,t} \times \Delta S_{i,t}/P_{i,t-1}) \\
& + SIZE_{i,t-1} \times (\beta_{10} DS_{i,t} + \beta_{11} \Delta S_{i,t}/P_{i,t-1} + \beta_{12} DS_{i,t} \times \Delta S_{i,t}/P_{i,t-1}) + \epsilon_{i,t},
\end{aligned}
\tag{4}
$$

where $BM_{i,t-1}$, $LEV_{i,t-1}$, and $SIZE_{i,t-1}$ are the book-to-market ratio, leverage, and size (see Appendix A for definitions), respectively, at the beginning of the fiscal year.[11] Table 1 presents descriptive statistics for C_Score and G_Score. In Panel A, C_Score (G_Score) has a mean of 0.200 (0.019) and median of 0.178 (0.018). Conservatism is present, as expected, throughout the sample (Q1 of C_Score is positive). In unreported results, Spearman (-0.251) and Pearson (-0.301) correlations between C_score and G_Score suggest a negative and significant correlation. Our results replicate the findings of higher asymmetric timeliness as a result of lower good news timeliness (negative correlation). Overall, the results are in line with the ones of Khan and Watts (2009) $Table$ 4. This validates our calculations.

Our firm-year measure of conditional conservatism ($CSCORE$) is the three-year average of C_Score (e.g., for year t, $CSCORE$ is the average over years t, $t-1$, and $t-2$).[12] A greater value of $CSCORE$ represents a higher degree of conditional conservatism.[13] In our

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11. C_Score (firm-year conditional conservatism) is defined as $\alpha_3 + \alpha_6 BM_{i,t} + \alpha_9 LEV_{i,t} + \alpha_{12} SIZE_{i,t}$. G_Score, is defined as $\alpha_2 + \alpha_5 BM_{i,t} + \alpha_8 LEV_{i,t} + \alpha_{11} SIZE_{i,t}$.

12. Given lagged values we estimate $Eq.$(4) over the sample from 2001 until 2014 to preserve sample size.

13. Our inferences are retained if we calculate $CSCORE$ as total timeliness of bad news recognition by summing C_Score and G_Score.

tests, we control for determinants affecting insiders' profitability as defined in the literature. Our main regression under consideration is as follows:

$$Profit_{i,t} = \beta_0 + \beta_1 CSCORE_{i,t} + \beta_2 Controls_{i,t} + \psi_{i,t} + \omega_{i,t} + \epsilon_{i,t}, \tag{5}$$

where all variables are as previously defined. We include firm- (ψ) and year- (ω) fixed effects to control for the firm-specific contracting environment and economy-wide temporal shocks, and cluster standard errors by firm and year (Petersen 2009). To mitigate reverse causality problems, we control for lagged insiders' profitability ($Profit_{i,t-1}$). The dependent variable is alternatively profitability from sales or from purchases. The coefficient of interest is β_1 that is expected to be significant and negative under $H1$ and $H2$.

3.3 Unconditional conservatism

We measure unconditional conservatism as the persistent downward bias in book value of equity. Book-to-market (BTM) is a noisy measure of unconditional conservatism since there are factors other than conservatism that affect both book and market value of equity. Following Sunder et al. (2018) we extract these other sources of variation in BTM. In particular, we control for growth and economic rents, distress, market sentiment, unrealized mark-to-market gains, and inflation. The residuals from $Eq.(6)$ below is our measure of unconditional conservative reporting ($UCONS$):

$$\begin{aligned} BTM_{i,t} = {}& \alpha + \beta_2 LTGForecast_{i,t} + \beta_2 SalesGrowth_{i,t} + \beta_3 IndConcentration_{i,t} \\ & + \beta_4 1/CSI_{i,t} + \beta_5 1/S\&PIndex_{i,t} + \beta_6 Profitability_{i,t} + \beta_7 CreditRating_{i,t} \\ & + \beta_8 ReturnVolatility_{i,t} + \beta_9 HighInflation_{i,t} + \beta_{10} AOCI_{i,t} + \epsilon_{i,t}, \end{aligned} \tag{6}$$

where BTM is the book value of assets divided by the market value of equity plus the book value of debt. Long-term growth forecast ($LTGForecast$) and sales growth ($SalesGrowth$) proxy for firm expected growth. Industry concentration ($IndConcentration$) controls for the

effect of a high rent that results in a lower BTM. $1/CSI$ is a proxy for consumer sentiment and $1/S\&P$ accounts for general level of prices that is expected to affect investors' sentiments. $Profitability$, $CreditRating$ and $ReturnVolatility$ control for distress. $HighInflation$ is an indicator variable that controls for inflation, because even without conservatism inflation can decrease BTM (Basu 1997). $AOCI$ is accumulated other comprehensive income scaled by total assets and is a proxy for the extent of fair value accounting.[14] $Eq.$(6) includes year- and industry- (four-digit SIC) fixed effects.

$UCONS$ are the residuals from $Eq.$(6). For ease of interpretation, we multiply then by -1, so that the higher $UCONS$, the more unconditionally conservative the firm is. To control for possible measurement error, we use the three-year average of $UCONS$ (e.g., for year t, $UCONS$ is the average over years t, $t-1$, and $t-2$).[15] Appendix 7, Table 2 provides a replication of Sunder et al. (2018) that serves to validate our calculation.[16] To test $H3$ and $H4$, we run $Eq.$(5) above, substituting $CONS$ for $UCONS$. The coefficient of interest is again β_1 which now is expected to be positive and statistically significant. As before, the dependent variable is either profitability from sales or from purchases.

4   Sample and Descriptive Statistics

We study U.S. firms for the period 2003 to 2014. Following Banker et al. (2016) we exclude financial firms (Standard Industrial Classification (SIC) between 6000 and 6999) and those firms with stock price below 1\$. Additionally, we exclude observations for which the annual change in sales exceeds 50% to eliminate large acquisitions that distort performance measure like earnings and operating accruals. We start our sample in 2003 to avoid the confounding effect of Sarbanes-Oxley (SOX) Act of 2002 that imposed stricter regulations for insider

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14. See Sunder et al. (2018) for detailed explanations of variables construction and estimation procedure.

15. Given lagged values we estimate $Eq.$(6) over the sample from 2001 until 2014 to preserve sample size.

16. Appendix 7, Table 3 replicates our main results using the proxy for unconditional conservatism of Beaver and Ryan (2005). The correlation between the two proxies is 67%. All our inferences are retained.

trading, particularly in terms of disclosure requirements.[17] Insider trading data comes from Thomson Financial Insider Fillings (Form 4 filings), and covers all transactions made by insiders and their relation to the firm. As noted, we focus on "opportunistic" insiders since their trades are more likely to be based on the use of private information. We perform our analysis within sub-groups as different insiders occupy positions that provide different levels of access to firm-specific information (Seyhun 1986; Lin and Howe 1990; Piotroski and Roulstone 2005; Ravina and Sapienza 2010). Particularly, the CEO and CFO are responsible for accounting estimates and the preparation of financial statements (Skaife et al. 2013). Also, overall, Top-5 insiders have better access to firm-specific information compared to other insiders (Core et al. 2006).[18] Given this, we classify insiders into three categories: (1) CEO-CFO; (2) Top-5; and (3) Officers and directors other than Top-5 insiders (No Top-5). We focus on open market sales and purchases and follow the steps detailed in Jagolinzer et al. (2011) in terms of our data-cleaning process. Accounting information comes from Compustat annual, and is merged with the insider trading data using six digits CUSIP. Data on daily share prices and returns comes from CRSP. The data on Institutional ownership is from Thomson Reuters 13F Holdings database. Finally, analyst coverage data is from I/B/E/S. All continuous variables are winsorized at the 99% and 1% levels.

[Insert Table 1 about here]

Table 1 presents descriptive statistics of our main variables. Panel B contains variables used in the Banker et al. (2016) and modified Khan and Watts (2009) models. Panel C contains the controls for insider trading profitability. Panel D presents descriptive evidence on the profitability from sales and purchases of different groups of insiders. Overall, the evidence reported in Table 1 is consistent with prior research, although it suggests that

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17. Brochet (2010) shows an increase in the information content of Form 4 after SOX, and lower insiders' sales around SOX. Before August 2002, insiders needed to file their trades within ten days after the end of the calender month in which the transaction occurred, which could result in a delay of up to 40 days since the trade. SOX requires insiders to file their trades within two business days. In robustness tests, we increase our sample to cover the period from 1996 to 2014. Our results stay in line with the main conclusions.

18. The Top5- includes the Chairman of the Board, CEO, CFO, COO and President (Core et al. 2006).

sample firms are slightly under performing, with over half of them (51.1%) experiencing bad news (DR=1). It can also be seen that, consistent with previous literature, on average, insider purchases appear to be more profitable than sales. Moreover, Panel D presents that trades conducted by the CEO, CFO and Top-5 insiders, on average, have higher returns compared to other officers and directors. This is consistent with different insiders having different access to firm-specific information on which to trade on.

5 Empirical Results

5.1 Insiders' profitability and conditional conservatism

5.1.1 Conditional conservatism as measured by modified Basu (1997)

Table 2 presents the results of testing $H1$ using the modified Basu (1997) model following Banker et al. (2016). The baseline regression under consideration is as in $Eq.$(3). For completeness, we show results segregated into the 3 groups of insiders as previously described.

[Insert Table 2 about here]

The first column presents results of Banker et al. (2016) raw model estimation, $Eq.$(2). The incremental coefficient on negative news, $DR \times RET$, is both positive and statistically significant (0.094; t-stat = 5.615). This is as expected and indicates that, on average, firms in the sample are conditionally conservative. The main results are presented in columns (2) to (7).[19] The coefficient of interest is the interaction of incremental timeliness and insiders' profitability (β_{10}). As represented in columns (2), (4) and (6), conservative reporting, on average, decreases insiders' profit from sales. This effect is statistically significant for all officer and directors (excluding Top-5 insiders, column (6)) (-0.369, t-stat=-3.172) ans CEO-CFO trades (-0.476, t-stat=-1.937). Additionally, the F-test rejects the null hypothesis that the

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19. We do not report the estimation results of control variables for brevity. Appendix 7, Table 4 provides the benchmark regression for this specification, where we include all the control variables.

negative news timeliness coefficient (β_{10}) is equal to zero (p-value = 0.08 and 0.01). Overall, this is consistent with lower insiders' profitability from sales in more conditionally conservative firms, and thus, suggests conditional conservatism is associated with less opportunities to profitably trade on negative news.

Columns (3), (5) and (7) present the results for insiders' profitability from purchases. The results support the negative association as predicted in $H2$. However, the effect of conditional conservatism on insiders profitability from purchases is statistically insignificant at conventional levels (-0.469, t-stat=-1.668; -0.280, t-stat=-1.305; -0.076, t-stat=-0.771). Additionally, the F-test rejects the null hypothesis that β_{10} is equal to zero. Overall, our results accept $H1$ and fail to accept $H2$, suggesting that conditional conservatism reduces insiders' opportunities to profitably trade on bad news.

5.1.2 Conditional conservatism as measured by modified Khan and Watts (2009)

Table 3 presents the estimation results of $Eq.(5)$, where we use a firm-year measure of conditional conservatism ($CSCORE$) based on the modified Khan and Watts (2009) model.[20] As predicted, there is a negative association between conditional conservatism and insiders' profitability from sales. The coefficient of $CSCORE$ is negative and significant for all types of insiders, columns (1), (2) and (3) (-0.494, t-stat = -3.880; -0.347, t-stat = -3.965; -0.238, t-stat = -5.574). Columns (2), (4) and (6) present the results on the association between conditional conservatism and profitability from purchases. As in Table 2 the effect is statistically insignificant. Across all models, the F-test rejects the null hypothesis that the measure of conditional conservatism (β_1) is equal to zero.

[Insert Table 3 about here]

Overall, our results thus far support $H1$, as we provide evidence of a negative association between conditional conservatism and insiders' profitability from sales. We fail to accept

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20. Appendix 7, Table 5 provides the benchmark regressions for this specification.

$H2$ consistent with the idea of no effect of conditional conservatism over the opportunities of insiders to profitably trade on good news. Additionally, our results systematically reveal lower insider trading profitability for officers and directors excluding Top-5 insiders. The results for the group of CEO-CFO and Top-5 insiders have lower negative statistical significance. This may indicate that top insiders have superior access to firm-specific information that would allow them to overcome the alleviation of information asymmetry by means of conservative reporting (Seyhun 1986; Lin and Howe 1990; Piotroski and Roulstone 2005; Ravina and Sapienza 2010). Results are robust to the inclusion of control variables, firm- and year-fixed effects and robust standard errors clustered at the firm-year level.

5.2   Additional analyses to account for endogeneity

A concern with our results thus far is endogeneity, and in particular, reverse causality. One may argue that more insider trading-prone firms are more likely to use conservative reporting. We try to control for this issue in a number of ways. First, as noted before, conservatism is a stable property of accounting numbers, which is the result of accounting choices, regulations, macro-economic factors and innate firm determinants (Watts 2003; Roychowdhury and Watts 2007; Qiang 2007; Khan and Watts 2009) that are fairly exogenous to the existing generation of managers. In our analyses, we construct our conservatism proxy as a three-year average so that it measures prior committent to conditional conservatism. Second, we include in our models time- and firm-fixed effects to account for economy-wide temporal shocks and the firm-specific contracting environment and corporate governance. Third, to mitigate the issue of reverse causality we introduce lagged insiders' profitability ($Profit_{i,t-1}$) in our equations. Fourth, we study the effect of conservative reporting on insiders' profitability within different groups of insiders that are expected to have different quality of private information. However, despite these steps, we cannot entirely rule out endogeneity concerns. A perfect experimental setting would be an exogenous shock to conservative reporting. However, due to the absence of such a shock, in this section, we propose additional analyses to mitigate this concern.

First, we repeat our main analyses using a changes specification. In particular, we study the association between current changes in conservatism and future changes in insiders' profitability. Additionally, to mitigate the issue of reverse causality we introduce a current change in insiders' profitability ($Profit_{i,t}$) as follows:

$$\Delta Profit_{i,t+1} = \beta_0 + \beta_1 \Delta CSCORE_{i,t} + \beta_2 \Delta Profit_{i,t} + \beta_3 \Delta Controls_{i,t} + \psi_{i,t} + \omega_{i,t} + \epsilon_{i,t+1}, \quad (7)$$

Table 4 presents the estimation results of $Eq.(7)$. Columns (1), (3) and (5) indicate a negative association between conditional conservatism and insiders' profitability from sales. The results are only significant at conventional levels for all officers and directors excluding Top-5 insiders (-0.291, t-stat=-4.175). Interestingly, columns (2), (4) and (6) indicate a positive association between conditional conservatism and insiders' profitability from purchases. The results are statistically significant for all groups of insiders.

[Insert Table 4 about here]

Overall, the results suggest that current changes in conservatism are associated with lower profitability from sales. Additionally, we find evidence that some insiders may profit from the asymmetric timeliness of positive news recognition. However, a concern with this test is the small sample sizes, particularly for the profitability from purchases analyses (except for the No Top-5 group), and thus, results should be interpreted with caution.[21]

5.2.1 Conditional Conservatism and Insider trading, evidence from SFAS 142

As a further robustness test, we use the adoption of SFAS 142 as a plausible external shock to conservatism. In particular, we follow Cedergren et al. (2017) who study the period before and after the introduction of SFAS 142. After the effective date of SFAS 142 (June 30, 2001) firms are required to replace periodic amortization of goodwill for impairments based on a

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21. If we aggregate the transactions of all insiders, the coefficient on $\Delta CSCORE$ is -0.177 (t-stat=4.309) for insider sales and -0.074 (t-stat=-0.256) for purchases. This is consistent with our previous findings in support of $H1$.

fair value test with write-offs if necessary.[22] Moreover, it required that a firm's goodwill is allocated to its reporting value. This resulted in an increase in goodwill impairments (Li and Sloan 2017). Thus, this regulatory change led to an increase in conditional conservatism as it increased the timeliness of loss recognition, that before SFAS 142 could be deferred as periodic expenses (Roychowdhury and Watts 2007).[23]

Goodwill appears as a result of mergers and acquisitions, representing intangible assets that are acquired in the transaction, but are not separately identifiable (e.g., customer loyalty, intellectual capital). The sample of acquisitions is obtained from Thomson Reuters Securities Data Company (SDC) Platinum database. To avoid the confounding effects of SOX (August 2002) that imposed stricter disclosure requirements for insider trades, we perform the analysis within a one-year window. In particular, we require that deals are completed between 2000-Q2 through 2002-Q2, a one-year window around SFAS 142. Following Cedergren et al. (2017) we exclude observations with missing transaction value, those where the percentage of target's firm acquired shares is less than 90 percent, and transactions where the value of the transaction is less than the bottom 1 percent or more than 100 percent of the firm's market value at the beginning of the fiscal year.

To test whether the passage of SFAS 142 has an impact on a firm-insiders' profitability within our sample we consider the following regression:

$$Profit_{i,t} = \beta_0 + \beta_1 T + \beta_2 SFAS + \beta_3 SFAS \times T + \beta_4 Controls_{i,t} + \psi_{i,t} + \omega_{i,t} + \epsilon_{i,t}, \quad (8)$$

as before, we include quarter fixed-effects (ψ), firm-fixed effects (ω) and cluster standard errors by firm and quarter (ϵ). $SFAS$ is a dummy variable equal to one for all observations

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22. Before SFAS 142 provision, firms amortized goodwill over a period not exceeding 40 years.

23. Basu (2001, pp. 1336-7) points out that the effect of SFAS 142 reduced unconditional (income) conservatism by stopping goodwill amortization while simultaneously increasing conditional (income) conservatism by mandating annual goodwill impairment reviews. To the extent that SFAS 142 reduced unconditional conservatism, and that unconditional conservatism constrains conditional conservatism, we expect that the overall effect of this regulation will be an increase in conditional conservatism. In addition, SFAS 141 was issued concurrently, further increasing ambiguity over the effect on unconditional conservatism, because mandatory purchase accounting likely increased depreciation (for revalued PPE) which depending on firm type could outweigh lost goodwill amortization.

after 2001-Q2, when SFAS 142 became effective, and zero otherwise. T is a dummy variable equal to one if the firm had at least one M&A deal before SFAS 142, and zero otherwise. $SFAS \times T$ captures the effect of SFAS 142 (increase in conditional conservatism) on the treated group, and is expected to be negative and statistically significant.

Table 5 presents the results on our causal analysis on the links between conditional conservatism and insiders' profitability. The coefficient of $SFAS \times T$, β_3, is negative and statistically significant for all groups. Additionally, there is a positive effect for the 'No Top-5' insiders group (0.213; t-stat=0.01).

[Insert Table 5 about here]

Overall, given the restrictions imposed on our sample in these tests, we still fail to fully assure causality of our results. However, this section provides additional support for $H1$ on the negative association between conditional conservatism and insiders' profitability from sales. The results on $H2$ are more mixed, but suggest that there may be a positive association between conservatism and profitability from purchases, particularly, for those insiders with more direct access to private information. We have argued that conditional conservatism disciplines good news disclosure, but its confirmatory role only exists when insiders opt to disclose. While accounting rules mandate timely recognition of bad news information, disclosure of good news remains voluntary. Also, financial statements are provided on a quarterly basis. This means insiders may still time their actions and profit from their private information in between reporting periods.

5.3 Insiders' profitability and unconditional conservatism

We now turn to examine whether unconditional conservatism is associated with the profitability of sales ($H3$) and purchases ($H4$). To the extent that unconditional conservatism introduces a bias of unknown magnitude into financial statements, it may create opportunities for insiders to trade profitably.

[Insert Tables 6 and 7 about here]

Table 6 presents estimation results of $Eq.(5)$, where we now focus on $UCONS$.[24] It can be readily seen that β_1 is positive and statistically significant for insiders' profitability from sales, but not for purchases (0.504, t-stat=4.554; 0.424, t-stat=4.203; 0.427, t-stat=8.597). Table 7 presents the results for the association between current changes in unconditional conservatism and future changes in insiders' profitability. As before, β_1 is positive and statistically significant for insiders' profitability from sales (0.759, t-stat=2.032; 0.525, t-stat=1.811; 0.365, t-stat=4.608). We find no evidence for purchases, as the only case where the coefficient is significant (and positive) the sample under consideration is very small (column (4), 36 observations). Overall, our findings support $H3$ and our arguments that unconditional conservatism is a news independent form of conservatism that constrains firm signalling of future negative economic events, leading to increased asymmetry of information and opportunities for insiders to speculate of negative information. Results are robust to the inclusion of control variables affecting insiders' profitability, firm- and year-fixed effects and robust standard errors clustered at the firm-year level.

6 Additional Analyses

6.1 Cross-sectional analyses

To shed light on the underlying mechanism and ensure the robustness of the conclusions drawn so far, in this section we conduct a number of split sample analyses to better understand the effects of conservative reporting on insiders' profitability. For these analyses, we classify firm-year observations into high (low) portfolios of firm-specific features if the observation is above (below) the median of the sample on an annual basis.

First, an ample literature suggest that litigation risk is an important determinant of conditional conservatism (see, e.g., Basu 1997; Ball et al. 2000; Holthausen and Watts 2001;

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24. Appendix 7, Tables 5 and 6 provides benchmark regressions for the specifications in Tables 6 and 7.

Lang et al. 2003; Huijen and Lubberink 2005; Ball and Shivakumar 2005; Lang et al. 2006; Lobo and Zhou 2006; Qiang 2007; Chung and Wynn 2008). There is also evidence for the link between litigation risk and insider trading in Cheng et al. (2016), which suggests that increases in litigation risk due to lawsuits lead to a decrease in the volume of insider sales. Given this evidence, we expect the effect of conservatism to be more pronounced in firms that operate in highly litigious industries. Specifically, we split our sample into firms operating in high and low litigation risk settings and re-run our main analyses of Table 3.

Table 8 Panels A and B presents the results, for two separate measures of litigation risk.[25] In Panel A we split the sample in accordance to the industry they operate in, and in Panel B in accordance to a Turnover measure (see Appendix A for definitions). As before, we use all the control variables with firm- and year-fixed effects and cluster standard errors at the firm-year level. As expected, in both Panels, the effect of conditional conservatism on insiders' profitability is more pronounced in the sample of firms with higher litigation risk.

[Insert Table 8 about here]

Second, we study the effect of conservatism on firms with high (low) information asymmetry. Again, we use two separate proxies: the overall informational opaqueness of the firm proxied by the bid-ask spread, and the quality of their textual disclosure. In particular, we consider a proxy for "readability" of financial disclosures - Bog index (Bonsall et al. 2017). It captures linguistic attributes (e.g. length of sentences, complex words, jargon, etc.) that are associated with the costs of the language used in financial disclosure. The higher is the Bog index, the lower is the level of financial disclosure readability. Panel C and D split sample into high and low levels of information asymmetry. On the one hand, insiders have higher profitability from their trades under higher information asymmetry (Aboody and Lev 2000). On the other hand, given higher informational asymmetry debt-holders are expected to require higher level of conservatism to reduce their concerns.

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25. Similar results are found if we use as measures of litigation risk the firm idiosyncratic risk or stock return volatility (*IVOL* and *Ret.volatil* in Appendix A).

Table 8 Panel C evidences the negative effect of conditional conservatism on insiders' profitability from sales when information asymmetry is low. This holds for all groups of insiders (-0.300, t-stat = -3.300; -0.270, t-stat = -3.537; -0.147, t-stat = -3.017). This result is constrained to the 'No Top-5' group of insiders (-0.224; t-stat = -4.974) in settings with higher information asymmetry. This group also appears to profit from purchases under higher information asymmetry (0.272; t-stat = 3.203). The aforementioned results are supported in Panel D. In settings with better readability of financial disclosures, there is a negative effect of conditional conservatism on insiders' profitability from sales (-0.275, t-stat = -2.757; -0.219, t-stat = -2.988; -0.179, t-stat = -3.577). When readability is low, the effect of conservatism on insiders' profitability is negative and statistically significant for both the 'No Top-5' insiders (-0.155; t-stat = -2.698) and the 'Top-5' insiders (-0.210, t-stat=-3.042).

Overall, this section sheds additional light on all our previous findings. First, we demonstrate that the demand side for conservative reporting (in high litigation settings) results in a more pronounced and negative effect on insiders' profitability from sales. Second, we document that the effect of conditional conservatism on the profitability from sales depends on the access of insiders to the highest quality firm-specific information. Those with better access appear to outperform the rest, as they likely have greater opportunities to engage in profitable insider trading, particularly when operating in settings with low litigation risk and higher informational asymmetry. Finally, the results on the effect of conditional conservatism on insiders' profitability from purchases remain mixed and weakly positive, suggesting that there might be a positive association in certain settings.

6.2 Additional control variables

To ensure the robustness of our findings, we consider additional control variables that are likely to affect insiders' profitability. In particular, to the extent that CEOs drive corporate culture (Bushman et al. 2017) and carry out firm policies (Dyreng et al. 2008) it may be important to control for CEO characteristics. In particular, we control age, tenure,

shareholdings and gender. Additionally, given that an increase in firm size might be due to inflation rather than growth, we introduce inflation-adjusted size measure. Finally, we control for firm overall corporate governance. See Appendix A for variables definitions.

[Insert Tables 9 and 10 about here]

Table 9 presents the results of Eq.(5). Including additional control variables significantly reduces sample sizes and thus, we do not present result for the sample of CEO-CFO and Top-5 insiders' profitability from purchases due to the severely reduced sample size. The results indicate that conditional conservatism is associated with a decrease in profitability from sales. Of the variables included only gender appears to have a significant effect. The evidence suggests lower profitability from insider sales when the CEO is female. Finally, Table 10 confirms all the previously documented positive effects of unconditional conservatism on insiders profitability from sales (0.611, t-stat=3.796; 0.559, t-stat=3.839; 0.370, t-stat=6.477). Overall, our results stay in line with the previous conclusions.

In Table 8 Panels A and B, we analysed the effect of conditional conservatism under high and low litigation risk. However, we still might miss the litigation risk that is inherent in firms that engage in insider trading, leading to biased estimates of β_1. Given this, we additionally control for idiosyncratic risk, stock return volatility and turnover ratio that are associated with firm's litigation risk (Jones and Weingram 1996; Gande and Lewis 2009).

[Insert Tables 11 and 12 about here]

Results in Tables 11 and 12 indicate that there is a negative (positive) association between conditional (unconditional) conservatism even if we control for firm's litigation risk.

6.3   Moderating effect of unconditional conservatism

In our final test, we analyse the constraint hypothesis discussed by Sunder et al. (2018). Past high levels of unconditional conservatism might prevent the recognition of future bad news.

For example, in the case of accelerated depreciation, write-offs lead to more conservative values early on, but also, limit future write-offs in case of negative expectations regarding a firm's prospects: i.e., assets can only be written-off once. Overall, we would expect a higher effect of conditional conservatism on insiders' profitability when there is a low level of past unconditional conservatism (i.e. higher scope for timely bad news recognition).

[Insert Table 13 about here]

Table 13 presents the results. Following Sunder et al. (2018), we split a sample into firms with high (low) levels of unconditional conservatism. The results are consistent with our expectations. In firms with low unconditional conservatism (Panel A) $CSCORE$ is larger and has higher statistical significance (-0.581, t-stat=-1.848; -0.553, t-stat=-2.602; -0.260, t-stat=-4.817). The results for the profitability of insiders' purchases are statistically insignificant.

7   Summary and Conclusion

We predict that accounting conservatism influences insiders' opportunities to speculate on good and bad news, and thus, insider trading profitability. We find that greater conditional (unconditional) conservatism is associated with lower (greater) insiders' profitability from sales. We also find limited evidence of a positive association between conservatism and insiders' profitability from purchases, although this result is sensitive to model specification. We measure conservatism using a number of different proxies, and our research design takes into consideration the endogenous nature of insiders' profitability.

Our results are consistent with our hypotheses on the different informational roles of conditional and unconditional conservatism, and on the asymmetric influence of conservatism over the opportunities to speculate on good *versus* bad news. In particular, our evidence suggests that conditional conservatism ameliorates the firm information environment, and that timely and complete recognition of losses reduces the opportunities of insiders to speculate

on negative news. In contrast, greater unconditional conservatism leads to greater information asymmetry and further opportunities for insiders to profitably trade on their private negative information. These findings may be of particular interest for regulators, given the ongoing debate on the desirable properties of accounting information. Also, for decades, there has existed a debate on whether insider trading should be allowed (see, e.g., Fishman and Hagerty 1992). Proponents argue that insider trading increases the informativeness of stock prices, accelerating uncertainty resolution. In contrast, those in favour of restricting it argue that insider trading may deter other traders from acquiring information, following the firm, or trading, leading to lower liquidity and greater information asymmetry. In this paper, we argue and show that conditional conservatism, by imposing a quicker and more complete recognition of bad news, limits the opportunities for insiders to exploit their information advantage. This has policy implications, because through conditional conservatism, bad news that insiders would otherwise not disclose are timely communicated to capital markets, and thus, the potential positive consequences of insider trading (lower uncertainty) is achieved in a timely manner (without waiting for trades), while avoiding its negative consequences. This should mean greater price informativeness and lower information asymmetry. Ultimately, more efficient prices benefit society as they lead to more efficient allocation of resources.

A   Appendix: Variable Definitions

Variable	Definition of main variables
Variables associated with accounting conservatism	
X	Net income before extraordinary items scaled by lagged market value of equity
RET	Twelve-month market-adjusted stock return ending the last day of fiscal year t
DR	Takes the value of one in case of negative or zero market adjusted stock returns (case of bad news) and zero otherwise (case of good news)
$\Delta S/P$	Sales change scaled by market value of equity at the beginning of the fiscal year
DS	Takes the value of one if sales decreased from the prior to the current fiscal year and zero otherwise
C_Score (G_Score)	Timeliness of bad (good) news obtained from the modified Khan and Watts (2009) following Banker et al. (2016)
$CSCORE$	Firm-year measure of conditional conservatism calculated as the three year average of C_Score (e.g. for year t the average consists of t, t-1, t-2).
$UCONS$	Firm-year measure of unconditional conservatism using Sunder et al. (2018)
Control variables for insider trading and additional analyses	
$SIZE$	Firm size, measured as the natural logarithm of market value of equity
BM	Ratio of book (total assets minus total liabilities) to market (total shares outstanding times price)
LEV	Long-term debt issue plus current liabilities scaled by total assets
ROA	Net income before extraordinary items scaled by total assets
$Inst.Ownership$	Institutional ownership measured as the percentage of common shares outstanding owned by institutional shareholders
$log(1 + analyst)$	Natural logarithm of the number of analysts following a firm
$Litigation$	Takes the value of one if a firm operates in a high litigation risk industry as identified by SIC codes 2833-2836, 3570-3577, 3600-3674, 5200-5961 and 7370
$Spread$	Average daily relative bid-ask spread for a stock and quarter. Relative Bid-ask spread = $100 \times$ (Ask - Bid)/($0.5\times$ (Ask + Bid)).
$Readability$	Bog Index (readability measure) created by Bonsall et al. (2017) and obtained from https://kelley.iu.edu/bpm/activities/bogindex.html
Age	CEO age
$Tenure$	CEO tenure
$Share\,Holdings$	CEO share holdings
$Gender$	Takes the value of one if the CEO is a female; and zero otherwise
$IVOL$	Yearly standard deviation of error term in Fama and French (1993) 3-factor model
$Turnover$	Average number of shares traded over the 100 trading days ending one month prior to the portfolio formation month, divided by shares outstanding on the last day. Following Gao and Ritter (2010), we adjust turnover for NASDAQ firms as follows: Prior to February 1, 2001, we divide NASDAQ volume by 2. For February 1, 2001, to December 31, 2001, we divide NASDAQ volume by 1.8. For 2002?2003, we divide NASDAQ volume by 1.6. For 2004 and beyond, we do not adjust NASDAQ volume
$Ret\,volatil.$	Annual return volatility of a stock

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Table 1: Descriptive statistics of Main Variables

	N	Mean	Std.dev	Q1	Median	Q3
Panel A: Descriptive statistics of C_score and G_score						
C_score	23827	0.200	0.201	0.101	0.178	0.260
G_score	23827	0.019	0.070	-0.015	0.018	0.044
Panel B: Variables related to conservatism						
X	26541	0.010	0.204	0.005	0.046	0.072
DR	25862	0.511	0.500	0.000	1.000	1.000
RET	25862	0.063	0.457	-0.198	-0.008	0.219
$RET \times DR$	25862	-0.120	0.175	-0.198	-0.008	0.000
DS	27378	0.262	0.440	0.000	0.000	1.000
$\Delta S_{i,t}/P_{i,t-1}$	26538	0.047	0.424	-0.004	0.042	0.122
$DS_{i,t} \times \Delta S_{i,t}/P_{i,t-1}$	26538	-0.069	0.317	-0.004	0.000	0.000
CSCORE	18941	0.207	0.161	0.129	0.185	0.253
UCONS	12933	0.012	0.18	-0.10	0.019	0.14
Panel C: Control variables for insider trading						
Log(Size)	27446	6.923	1.836	5.588	6.799	8.122
Leverage	27446	0.399	0.808	0.006	0.146	0.431
B/M	27446	0.523	0.442	0.260	0.440	0.684
Analyst	27446	7.682	6.930	3.000	5.000	11.000
Inst. Ownership	27446	0.622	0.296	0.402	0.687	0.864
ROA	27446	0.012	0.174	0.003	0.042	0.081
Panel D: Profitability of insiders						
Sales:						
CEO-CFO	4749	0.016	0.201	-0.099	0.003	0.118
Top-5	5679	0.016	0.201	-0.098	0.003	0.117
Insiders excluding Top-5	13495	0.009	0.178	-0.083	0.004	0.098
Purchases:						
CEO-CFO	2305	0.090	0.287	-0.077	0.068	0.229
Top-5	2595	0.088	0.285	-0.075	0.066	0.223
Insiders excluding Top-5	5620	0.068	0.244	-0.062	0.049	0.177

Panel A presents descriptive statistics of C_score and G_score as in Khan and Watts (2009). Panel B contains variables used in the Basu (1997) and Khan and Watts (2009) models. Panel C contains the variables that are used as controls for insider trading profitability. Panel D presents descriptive evidence on the profitability of different groups of insiders. All of the variables are defined in Table A. All continuous variables are winsorized at the 99% and 1% levels.

Table 2: Corporate insiders' profitability across firms with different conditional conservatism level based on Banker et al. (2016)

	Sample	CEO-CFO		Top-5		No Top-5	
VARIABLES	Mod.Basu	Sale	Purchase	Sale	Purchase	Sale	Purchase
DR	-0.002	-0.030	-0.283*	-0.041	-0.213*	0.005	0.078
	(-0.613)	(-0.521)	(-2.067)	(-0.918)	(-1.830)	(0.150)	(1.556)
RET	0.012	-0.134	-0.202	-0.187*	-0.175	-0.054	0.064
	(1.408)	(-1.648)	(-1.587)	(-2.038)	(-1.758)	(-0.713)	(0.847)
$DR \times RET$	0.094***	0.384*	-0.291	0.519**	-0.033	0.227	-0.067
	(5.615)	(2.134)	(-0.858)	(2.608)	(-0.093)	(1.455)	(-0.504)
DS	-0.024***	0.092	-0.177*	0.032	-0.196**	-0.081*	-0.139***
	(-5.309)	(1.757)	(-2.008)	(0.676)	(-2.567)	(-2.117)	(-3.437)
$\Delta S_{i,t}/P_{i,t-1}$	-0.043**	0.020	-0.355	0.032	-0.409	-0.068	-0.261**
	(-2.222)	(0.175)	(-1.600)	(0.193)	(-1.687)	(-0.401)	(-2.786)
$DS_{i,t} \times \Delta S_{i,t}/P_{i,t-1}$	0.193***	0.989***	0.053	0.444	0.102	0.250	0.212
	(6.869)	(4.112)	(0.161)	(1.319)	(0.311)	(0.928)	(1.176)
$Profit_{t+1}$		-0.106***	-0.082	-0.076*	-0.049	-0.057*	0.048
		(-3.541)	(-1.077)	(-2.104)	(-0.716)	(-1.888)	(1.644)
$DR \times Profit_{t+1}$		0.002	-0.066	-0.010	-0.061	-0.023	-0.059
		(0.024)	(-0.737)	(-0.129)	(-0.732)	(-0.527)	(-1.310)
$RET \times Profit_{t+1}$		0.093	0.107	0.046	0.019	0.066	-0.003
		(1.015)	(0.879)	(0.503)	(0.225)	(1.152)	(-0.046)
$\boldsymbol{DR \times RET \times Profit_{t+1}}$		**-0.476***	**-0.469**	**-0.281**	**-0.280**	**-0.369***	**-0.076**
		(-1.937)	(-1.668)	(-1.159)	(-1.305)	(-3.172)	(-0.771)
$DS \times Profit_{t+1}$		-0.077	0.051	-0.049	0.025	0.002	-0.056*
		(-1.337)	(0.718)	(-1.013)	(0.391)	(0.049)	(-1.870)
$\Delta S_{i,t}/P_{i,t-1} \times Profit_{t+1}$		0.309	0.371*	0.373	0.448*	0.228	-0.214**
		(1.327)	(1.837)	(1.373)	(2.013)	(0.971)	(-2.612)
$DS_{i,t} \times \Delta S_{i,t}/P_{i,t-1} \times Profit_{t+1}$		-0.727**	-0.286	-0.555*	-0.360	-0.223	0.130
		(-2.657)	(-1.220)	(-2.111)	(-1.502)	(-0.862)	(0.806)
Controls		Yes	Yes	Yes	Yes	Yes	Yes
F-test: $\beta_{10}=0$		0.08	0.12	0.27	0.22	0.01	0.46
Observations	25,081	2,722	1,017	3,445	1,187	10,379	3,263
Adjusted R-squared	0.352	0.566	0.366	0.459	0.333	0.350	0.467
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Clustered St. Errors	Yes	Yes	Yes	Yes	Yes	Yes	Yes

This table presents results of the estimation of *Eq.*(3). All the variables are as described in Table A. All continuous variables are winsorized at the 99% and 1% levels. ***, **, * denote statistical significance at 1%, 5% and 10% levels. P-values are derived based on robust standard errors clustered at the firm-year level.

Table 3: Estimation of corporate insiders' profitability across firms with different conditional conservatism level based on modified Khan and Watts (2009)

VARIABLES	CEO-CFO		Top-5		No Top-5	
	Sale	Purchase	Sale	Purchase	Sale	Purchase
CSCORE	**-0.494***	**-0.241**	**-0.347***	**-0.197**	**-0.238***	**0.136**
	(-3.880)	(-0.624)	(-3.965)	(-0.775)	(-5.574)	(1.297)
$Profit_{t-1}$	-0.255***	-0.346***	-0.263***	-0.347***	-0.152***	-0.277***
	(-5.732)	(-4.462)	(-8.943)	(-4.811)	(-6.291)	(-6.344)
Log(Size)	-0.043	0.070	-0.059*	0.109	-0.019	0.035
	(-1.066)	(0.744)	(-1.980)	(1.241)	(-1.722)	(0.758)
Leverage	-0.011	-0.048	0.044	0.025	0.053***	0.033*
	(-0.425)	(-1.213)	(1.596)	(0.387)	(4.754)	(2.026)
B/M	0.183**	0.068	0.075	0.042	0.124***	-0.067
	(2.654)	(0.525)	(1.520)	(0.250)	(5.099)	(-1.409)
Log(1+analyst)	0.010	-0.155*	0.027	-0.153*	0.054***	-0.028
	(0.393)	(-2.111)	(1.367)	(-2.196)	(5.582)	(-1.139)
Ins. Ownership	0.187	-0.421	0.238**	-0.766*	0.146***	-0.353**
	(1.779)	(-1.170)	(2.927)	(-2.051)	(4.154)	(-2.871)
ROA	0.044	-0.119	0.031	-0.066	-0.066	0.099
	(0.388)	(-0.672)	(0.307)	(-0.352)	(-1.049)	(0.657)
F-test: β_1=0	0.00	0.55	0.00	0.46	0.00	0.22
Observations	1,066	255	1,450	308	6,754	1,150
Adjusted R-squared	0.141	0.141	0.142	0.127	0.161	0.196
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Clustered St. Errors	Yes	Yes	Yes	Yes	Yes	Yes

This table reports the results for the estimation of $Eq.$(5). All the variables are as described in Table A. All continuous variables are winsorized at the 99% and 1% levels. ***, **, * denote statistical significance at 1%, 5% and 10% levels. P-values are derived based on robust standard errors clustered at the firm-year level.

Table 4: Estimation of the association between current changes in conditional conservatism and future changes in insiders' profitability.

VARIABLES	CEO-CFO		Top-5		No Top-5	
	Sale	Purchase	Sale	Purchase	Sale	Purchase
$\Delta CSCORE$	**-0.026**	**3.903*****	**-0.359**	**2.651*****	**-0.291*****	**0.375****
	(-0.119)	(4.593)	(-1.586)	(5.766)	(-4.175)	(2.647)
$\Delta Profit_{t-1}$	-0.527***	-0.195	-0.542***	-0.305**	-0.455***	-0.620***
	(-6.438)	(-1.105)	(-8.181)	(-2.833)	(-19.671)	(-7.086)
$\Delta Log(Size)$	0.252***	0.338*	0.174***	0.231	0.179***	-0.120
	(4.863)	(1.816)	(3.333)	(1.657)	(6.525)	(-1.520)
$\Delta Leverage$	0.043	0.057	0.061***	0.223	0.019	-0.049*
	(1.226)	(0.269)	(4.417)	(1.378)	(0.646)	(-1.885)
$\Delta B/M$	0.023	0.642	-0.051	0.520*	0.069*	0.091
	(0.167)	(1.603)	(-0.645)	(1.977)	(2.226)	(1.256)
$\Delta Log(1 + analyst)$	-0.055	-0.110	-0.040	-0.137	0.008	-0.086
	(-0.987)	(-0.694)	(-1.189)	(-1.022)	(0.935)	(-1.798)
$\Delta Inst.Ownership$	0.050	1.454**	0.036	0.822	0.123*	-0.106
	(0.292)	(2.295)	(0.188)	(1.484)	(1.897)	(-0.471)
ΔROA	-0.194	-0.442	-0.047	-0.511	0.081	0.332
	(-1.439)	(-1.257)	(-0.421)	(-1.438)	(1.673)	(1.792)
F-test: $\beta_1=0$	0.91	0.00	0.14	0.00	0.00	0.024
Observations	293	69	491	78	3,738	377
Adjusted R-squared	0.274	0.080	0.193	0.092	0.213	0.201
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Clustered St. Errors	Yes	Yes	Yes	Yes	Yes	Yes

This table reports the results for the estimation of $Eq.(7)$. In particular, we study the association between current changes in conservatism and future changes in insiders' profitability. The dependent variable is $Profit_{i,t+1}$. All the variables are as described in Table 4. All continuous variables are winsorized at the 99% and 1% levels. ***, **, * denote statistical significance at 1%, 5% and 10% levels. P-values are derived based on robust standard errors clustered at the firm-year level.

Table 5: Estimation of the effect of asymmetric timeliness on insiders' profitability from sales and purchases after the SFAS-142 Provision of 2001

	CEO-CFO		Top-5		No Top-5	
VARIABLES	Sale	Purchase	Sale	Purchase	Sale	Purchase
SFAS	0.241**	-0.663**	0.177**	-0.349	0.012	-0.351**
	(2.575)	(-2.088)	(2.542)	(-1.133)	(0.252)	(-2.076)
Treated	0.057	-0.022	-0.015	-0.078	0.020	-0.031
	(0.848)	(-0.173)	(-0.256)	(-0.606)	(0.641)	(-0.529)
SFAS×Treated	**-0.223***	**0.009**	**-0.155**	**0.017**	**-0.082**	**0.213**
	(-2.719)	(0.048)	(-2.346)	(0.097)	(-2.120)	(2.584)
Log(Size)	-0.004	-0.074	0.002	0.015	0.001	-0.020
	(-0.150)	(-1.108)	(0.076)	(0.355)	(0.058)	(-0.725)
Leverage	-0.054	0.179***	-0.025	0.162***	-0.032	0.039
	(-0.865)	(4.980)	(-0.528)	(5.497)	(-0.800)	(1.040)
B/M	-0.027	-0.082	0.034	-0.041	-0.020	-0.052
	(-0.407)	(-0.990)	(0.658)	(-0.543)	(-0.460)	(-0.943)
Log(1+analyst)	-0.051	0.162	-0.043	0.135	-0.005	0.067
	(-0.864)	(1.502)	(-0.940)	(1.458)	(-0.169)	(1.190)
Inst.Ownership	-0.049	0.014	-0.052	-0.332	0.046	-0.127
	(-0.385)	(0.039)	(-0.499)	(-1.213)	(0.792)	(-0.986)
ROA	-1.109***	0.675**	-1.035***	0.376	-0.239	0.020
	(-2.851)	(2.071)	(-4.503)	(1.156)	(-1.152)	(0.056)
Constant	0.057	-0.036	0.046	-0.368	-0.105	0.206
	(0.311)	(-0.123)	(0.286)	(-1.319)	(-1.316)	(1.234)
F-test: $\beta_3=0$	0.01	0.96	0.02	0.92	0.03	0.01
Observations	486	152	652	193	1,401	475
Adjusted R-squared	0.075	0.247	0.124	0.115	0.089	0.107
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Clustered St. Errors	Yes	Yes	Yes	Yes	Yes	Yes

This table reports the results for the estimation of *Eq.*(8). In particular, we study the effect of an exogenous change in conservatism on insiders' profitability from their trades. The dependent variable is profitability from sales or purchases. All the variables are as described in Table 4. All continuous variables are winsorized at the 99% and 1% levels. ***, **, * denote statistical significance at 1%, 5% and 10% levels. P-values are derived based on robust standard errors clustered at the firm-year level.

Table 6: Estimation of corporate insiders' profitability across firms with different level of unconditional conservatism based on Sunder et al. (2018)

VARIABLES	CEO-CFO		Top-5		No Top-5	
	Sale	Purchase	Sale	Purchase	Sale	Purchase
UCONS	**0.504*****	**0.410**	**0.424*****	**0.182**	**0.427*****	**-0.251**
	(4.554)	(1.047)	(4.203)	(0.468)	(8.597)	(-1.238)
$Profit_{t-1}$	-0.285***	-0.297**	-0.275***	-0.366***	-0.166***	-0.303***
	(-5.076)	(-3.006)	(-6.469)	(-4.064)	(-7.083)	(-4.409)
Log(Size)	-0.114**	0.019	-0.112**	0.043	-0.040**	0.001
	(-2.632)	(0.182)	(-2.952)	(0.386)	(-2.448)	(0.026)
Leverage	-0.028	-0.108**	0.021	0.008	0.015	0.029
	(-0.737)	(-2.638)	(0.657)	(0.089)	(1.117)	(1.648)
B/M	0.151	0.198*	0.059	-0.007	0.232***	-0.136*
	(1.633)	(1.846)	(0.735)	(-0.048)	(7.983)	(-2.050)
Log(1+analyst)	0.059*	-0.323**	0.064**	-0.265**	0.059***	-0.089*
	(2.101)	(-2.834)	(3.229)	(-2.400)	(4.567)	(-2.047)
Ins. Ownership	0.203*	-1.229**	0.259***	-0.968**	0.081**	-0.233
	(2.178)	(-2.573)	(3.409)	(-2.318)	(2.285)	(-1.715)
ROA	-0.008	0.044	-0.042	-0.040	-0.140**	0.282
	(-0.119)	(0.542)	(-0.569)	(-0.338)	(-2.464)	(1.651)
F-test: $\beta_1=0$	0.00	0.32	0.00	0.65	0.00	0.25
Observations	875	169	1,170	191	5,235	699
Adjusted R-squared	0.196	0.226	0.180	0.171	0.182	0.206
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Clustered St. Errors	Yes	Yes	Yes	Yes	Yes	Yes

This table reports the results for the estimation of $Eq.(5)$ substituting $CSCORE$ for $UCONS$. All the variables are as described in Table A. All continuous variables are winsorized at the 99% and 1% levels. ***, **, * denote statistical significance at 1%, 5% and 10% levels. P-values are derived based on robust standard errors clustered at the firm-year level.

Table 7: Estimation of the association between current changes in unconditional conservatism and future changes in insiders' profitability.

VARIABLES	CEO-CFO		Top-5		No Top-5	
	Sale	Purchase	Sale	Purchase	Sale	Purchase
$\Delta UCONS$	**0.759***	**0.628**	**0.525**	**1.388***	**0.365***	**-0.024**
	(2.032)	(0.320)	(1.811)	(2.199)	(4.608)	(-0.076)
$\Delta Profit_{t-1}$	-0.451***	-0.331**	-0.505***	-0.377***	-0.465***	-0.618***
	(-5.386)	(-3.161)	(-7.127)	(-4.837)	(-9.773)	(-6.085)
$\Delta Log(Size)$	0.145**	-1.431	0.085*	-0.825	0.175***	-0.014
	(2.640)	(-1.965)	(2.182)	(-1.516)	(6.753)	(-0.126)
$\Delta Leverage$	0.033	-0.950	0.048**	-0.819	-0.006	-0.059*
	(0.831)	(-1.371)	(2.782)	(-1.628)	(-0.218)	(-2.215)
$\Delta B/M$	-0.011	-0.441	-0.118*	-0.522	0.109**	0.154
	(-0.090)	(-0.728)	(-2.193)	(-1.072)	(2.988)	(1.551)
$\Delta Log(1 + analyst)$	0.002	-0.072	-0.026	-0.274**	-0.002	-0.122*
	(0.042)	(-1.387)	(-0.580)	(-3.358)	(-0.128)	(-1.996)
$\Delta Inst.Ownership$	-0.080	0.968	0.169	2.103*	0.178**	-0.287
	(-0.248)	(1.192)	(0.574)	(2.462)	(3.127)	(-1.291)
ΔROA	-0.195	2.094	-0.093	0.905	0.009	0.208
	(-1.796)	(1.952)	(-0.942)	(1.642)	(0.301)	(0.835)
F-test: β_1=0	0.08	0.76	0.11	0.08	0.02	0.94
Observations	228	28	349	36	2,850	218
Adjusted R-squared	0.159	0.267	0.152	0.326	0.182	0.238
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Clustered St. Errors	Yes	Yes	Yes	Yes	Yes	Yes

This table reports the results for the estimation of $Eq.(7)$ substituting $CSORE$ for $UCONS$. In particular, we study the association between current changes in conservatism and future changes in insiders' profitability. The dependent variable is $Profit_{i,t+1}$. All the variables are as described in Table 4. All continuous variables are winsorized at the 99% and 1% levels. ***, **, * denote statistical significance at 1%, 5% and 10% levels. P-values are derived based on robust standard errors clustered at the firm-year level.

Table 8: Split sample analysis

VARIABLES	CEO-CFO		Top-5		No Top-5	
	Sale	Purchase	Sale	Purchase	Sale	Purchase
Panel A: Low Litigation Risk - Industry						
CSCORE	-0.253	-0.134	-0.249	-0.042	-0.190**	0.261*
	(-1.333)	(-0.450)	(-1.738)	(-0.129)	(-2.378)	(1.994)
Observations	584	264	703	297	2,753	943
Adjusted R-squared	0.150	0.150	0.186	0.079	0.133	0.077
High Litigation Risk						
CSCORE	-0.175**	-0.061	-0.186***	0.019	-0.150***	0.094
	(-2.674)	(-0.398)	(-3.598)	(0.165)	(-5.235)	(1.657)
Observations	1,728	536	2,218	640	6,324	1,865
Adjusted R-squared	0.128	0.136	0.105	0.096	0.112	0.117
Panel B: Low Litigation Risk - Turnover						
CSCORE	-0.158	-0.029	-0.084	0.001	-0.169***	0.068
	(-1.382)	(-0.170)	(-1.006)	(0.007)	(-4.244)	(0.665)
Observations	793	448	1,023	525	3,722	1,303
Adjusted R-squared	0.155	0.146	0.150	0.106	0.124	0.143
High Litigation Risk						
CSCORE	-0.171**	-0.334	-0.244**	-0.196	-0.168***	0.112
	(-2.227)	(-1.267)	(-3.051)	(-0.717)	(-4.027)	(1.125)
Observations	1,250	247	1,595	297	4,872	1,173
Adjusted R-squared	0.116	0.039	0.075	0.052	0.119	0.079
Panel C: Low information asymmetry						
CSCORE	-0.300***	-0.233	-0.270***	-0.082	-0.147**	-0.102
	(-3.300)	(-0.922)	(-3.537)	(-0.396)	(-3.017)	(-1.098)
Observations	1,347	201	1,712	242	6,081	1,334
Adjusted R-squared	0.092	0.151	0.086	0.147	0.112	0.124
High information asymmetry						
CSCORE	-0.112	0.048	-0.156	0.124	-0.224***	0.272***
	(-0.720)	(0.301)	(-1.586)	(1.300)	(-4.974)	(3.203)
Observations	789	534	994	611	2,617	1,278
Adjusted R-squared	0.150	0.169	0.170	0.103	0.133	0.075
Panel D: Good Readability						
CSCORE	-0.275**	-0.052	-0.219**	-0.045	-0.179***	0.150
	(-2.757)	(-0.254)	(-2.988)	(-0.346)	(-3.577)	(1.696)
Observations	1,221	396	1,546	461	4,800	1,526
Adjusted R-squared	0.097	0.077	0.078	0.051	0.119	0.060
Bad Readability						
CSCORE	-0.135	-0.649**	-0.210**	-0.252	-0.155**	-0.085
	(-0.983)	(-2.504)	(-3.042)	(-0.850)	(-2.698)	(-0.587)
Observations	830	311	1,064	363	3,581	958
Adjusted R-squared	0.126	0.158	0.144	0.111	0.103	0.152

This table reports the results for the estimation of $Eq.(8)$. In particular, we study the effect of an exogenous change in conservatism on insiders' profitability from their trades. The dependent variable is profitability from sales or purchases. All the variables are as described in Table 4. All continuous variables are winsorized at the 99% and 1% levels. ***, **, * denote statistical significance at 1%, 5% and 10% levels. P-values are derived based on robust standard errors clustered at the firm-year level.

Table 9: Additional Control variables, Conditional Conservatism

VARIABLES	CEO-CFO Sale	Top-5 Sale	No Top-5 Sale	No Top-5 Purchase
CSCORE	**-0.410**	**-0.303****	**-0.149****	**-0.129**
	(-1.449)	(-2.212)	(-2.985)	(-0.687)
$Profit_{t-1}$	-0.299***	-0.335***	-0.117**	-0.215***
	(-3.187)	(-3.870)	(-3.054)	(-4.448)
Log(Age)	-0.007	0.140	-0.031	0.238
	(-0.026)	(0.944)	(-0.614)	(0.821)
Log(Tenure)	0.048	0.021	0.010*	-0.015
	(1.416)	(1.111)	(1.877)	(-0.442)
Gender	-0.296**	-0.224***	-0.038	
	(-3.012)	(-3.587)	(-1.005)	
Share Holdings	0.165	0.321**	-0.135	-0.197
	(0.796)	(2.482)	(-1.287)	(-0.489)
Corporate Governance	0.024	0.003	-0.020**	-0.069*
	(0.327)	(0.058)	(-2.291)	(-2.194)
Size Infl. Adjusted	-0.127**	-0.140**	-0.026	-0.041
	(-2.382)	(-2.973)	(-1.571)	(-0.601)
Leverage	-0.008	0.007	0.024	0.066
	(-0.168)	(0.232)	(1.551)	(1.206)
B/M	0.024	-0.055	0.114**	-0.237**
	(0.218)	(-0.590)	(3.083)	(-2.616)
Log(1+analyst)	0.050	0.106***	0.045***	0.005
	(1.510)	(3.450)	(4.169)	(0.124)
Ins. Ownership	-0.154	0.030	0.030	-0.183
	(-0.784)	(0.196)	(0.776)	(-0.736)
ROA	0.364**	0.408**	-0.025	-0.101
	(2.696)	(3.022)	(-0.258)	(-0.355)
F-test: $\beta1=0$	0.18	0.05	0.01	0.50
Observations	331	465	2,765	303
Adjusted R-squared	0.120	0.141	0.121	0.096
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Clustered St. Errors	Yes	Yes	Yes	Yes

This table reports the results for the estimation of *Eq.*(5) using additional control variables. All the variables are as described in Table A. All continuous variables are winsorized at the 99% and 1% levels. ***, **, * denote statistical significance at 1%, 5% and 10% levels. P-values are derived based on robust standard errors clustered at the firm-year level.

Table 10: Additional Control variables, Unconditional Conservatism

VARIABLES	CEO-CFO	Top-5	No Top-5	
	Sale	Sale	Sale	Purchase
UCONS	**0.611***	**0.559***	**0.370***	**-0.055**
	(3.796)	(3.839)	(6.477)	(-0.295)
$Profit_{t-1}$	-0.361***	-0.395***	-0.132***	-0.198***
	(-3.836)	(-5.275)	(-3.708)	(-4.025)
Log(Age)	-0.250	-0.131	-0.030	0.468*
	(-1.118)	(-0.783)	(-0.565)	(1.968)
Log(Tenure)	0.013	0.006	0.008	-0.028
	(0.505)	(0.304)	(1.480)	(-1.098)
Gender	-0.279**	-0.235**	-0.036	*Omitted*
	(-2.771)	(-2.856)	(-1.024)	
Share Holdings	0.172	0.260*	-0.263*	-0.254
	(0.810)	(2.080)	(-2.099)	(-0.728)
Corporate Governance	0.044	0.021	-0.018*	-0.062
	(0.639)	(0.435)	(-2.002)	(-1.567)
Size Infl. Adjusted	-0.126*	-0.166***	-0.046*	-0.051
	(-1.989)	(-3.214)	(-2.186)	(-1.085)
Leverage	-0.013	-0.001	0.040	0.056
	(-0.265)	(-0.038)	(1.504)	(1.390)
B/M	0.108	-0.010	0.180***	-0.222**
	(0.805)	(-0.137)	(3.499)	(-2.713)
Log(1+analyst)	0.044	0.089***	0.039***	0.018
	(1.533)	(3.393)	(3.610)	(0.468)
Ins. Ownership	-0.182	0.022	-0.008	-0.064
	(-0.920)	(0.162)	(-0.176)	(-0.249)
ROA	-0.058	0.031	-0.148*	0.044
	(-0.533)	(0.263)	(-1.837)	(0.166)
Observations	372	499	2,812	300
Adjusted R-squared	0.146	0.160	0.131	0.133
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Clustered St. Errors	Yes	Yes	Yes	Yes

This table reports the results for the estimation of $Eq.(5)$ substituting $CONS$ with $UCONS$ and using additional control variables. All the variables are as described in Table A. All continuous variables are winsorized at the 99% and 1% levels. ***, **, * denote statistical significance at 1%, 5% and 10% levels. P-values are derived based on robust standard errors clustered at the firm-year level.

Table 11: Estimation of corporate insiders' profitability across firms with different level of unconditional conservatism based on Sunder et al. (2018)

VARIABLES	CEO-CFO		Top-5		No Top-5	
	Sale	Purchase	Sale	Purchase	Sale	Purchase
CSCORE	**-0.397****	**-0.047**	**-0.303****	**-0.158**	**-0.217*****	**0.084**
	(-2.841)	(-0.131)	(-3.088)	(-0.602)	(-4.993)	(0.883)
$Profit_{t-1}$	-0.248***	-0.274**	-0.264***	-0.302***	-0.142***	-0.271***
	(-5.513)	(-2.933)	(-8.776)	(-4.027)	(-6.861)	(-6.681)
Log(Size)	-0.019	0.095	-0.048	0.193*	-0.012	0.029
	(-0.511)	(0.852)	(-1.582)	(2.025)	(-1.090)	(0.580)
Leverage	-0.024	-0.052	0.045	-0.022	0.050***	0.025
	(-0.991)	(-1.130)	(1.702)	(-0.465)	(4.586)	(1.760)
B/M	0.204**	0.053	0.076	0.223	0.133***	-0.061
	(2.941)	(0.444)	(1.536)	(1.498)	(5.382)	(-1.319)
Log(1+analyst)	0.015	-0.146*	0.034	-0.148*	0.054***	-0.023
	(0.610)	(-1.968)	(1.767)	(-2.120)	(5.690)	(-0.937)
Ins. Ownership	0.130	-0.222	0.211**	-0.708	0.106**	-0.326**
	(1.210)	(-0.649)	(2.422)	(-1.708)	(2.986)	(-2.625)
ROA	0.029	-0.260	0.042	-0.113	-0.078	0.142
	(0.250)	(-1.038)	(0.444)	(-0.467)	(-1.260)	(0.908)
IVOL	0.157	0.840**	0.116	0.473	-0.011	0.070
	(1.219)	(2.643)	(0.930)	(1.641)	(-0.295)	(0.429)
Turnover	0.318**	-0.443	0.226*	-0.052	0.160***	-0.064
	(2.626)	(-0.616)	(2.132)	(-0.145)	(3.427)	(-0.426)
Ret volatil.	0.148*	0.135	0.136*	0.010	0.004	0.127*
	(1.885)	(0.718)	(2.004)	(0.064)	(0.085)	(1.851)
F-test: $\beta_1=0$	0.02	0.90	0.01	0.56	0.00	0.40
Observations	1,012	239	1,373	290	6,576	1,113
Adjusted R-squared	0.175	0.121	0.156	0.133	0.160	0.202
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Clustered St. Errors	Yes	Yes	Yes	Yes	Yes	Yes

This table reports the results for the estimation of $Eq.(5)$ using additional control variables. All the variables are as described in Table A. All continuous variables are winsorized at the 99% and 1% levels. ***, **, * denote statistical significance at 1%, 5% and 10% levels. P-values are derived based on robust standard errors clustered at the firm-year level.

Table 12: Estimation of corporate insiders' profitability across firms with different level of unconditional conservatism based on Sunder et al. (2018)

VARIABLES	CEO-CFO		Top-5		No Top-5	
	Sale	Purchase	Sale	Purchase	Sale	Purchase
UCONS	**0.424***	**0.728**	**0.370***	**0.783**	**0.410***	**-0.177**
	(4.106)	(1.786)	(3.613)	(1.783)	(8.550)	(-0.918)
$Profit_{t-1}$	-0.313***	-0.329**	-0.300***	-0.363**	-0.165***	-0.232**
	(-5.723)	(-3.040)	(-7.728)	(-3.247)	(-8.971)	(-3.175)
Log(Size)	-0.084	-0.094	-0.091*	-0.003	-0.034**	-0.016
	(-1.625)	(-0.811)	(-2.096)	(-0.025)	(-2.445)	(-0.361)
Leverage	0.022	-0.126**	0.048	-0.081	0.020	0.018
	(0.616)	(-2.305)	(1.620)	(-1.450)	(1.516)	(1.102)
B/M	0.135	0.148	0.042	0.148	0.227***	-0.106
	(1.310)	(1.247)	(0.513)	(1.291)	(8.396)	(-1.691)
Log(1+analyst)	0.068**	-0.299*	0.067***	-0.244	0.058***	-0.086*
	(2.748)	(-1.934)	(3.726)	(-1.556)	(4.724)	(-1.956)
Ins. Ownership	0.135	-1.252*	0.203*	-1.373*	0.019	-0.276
	(0.935)	(-1.836)	(1.851)	(-2.185)	(0.609)	(-1.799)
ROA	0.011	0.043	-0.006	-0.031	-0.136**	0.289
	(0.184)	(0.358)	(-0.080)	(-0.226)	(-2.308)	(1.780)
IVOL	0.209	-0.380	0.088	-0.558	-0.140**	0.019
	(1.197)	(-0.501)	(0.760)	(-1.024)	(-2.999)	(0.105)
Turnover	0.227	-0.257	0.273*	-0.470	0.184***	0.088
	(1.518)	(-0.456)	(2.247)	(-0.869)	(4.083)	(0.606)
Ret volatil.	0.053	0.378**	0.093	0.363**	0.001	-0.062
	(0.645)	(2.623)	(1.239)	(2.473)	(0.034)	(-0.656)
F-test: $\beta_1=0$	0.00	0.11	0.01	0.11	0.00	0.38
Observations	765	148	1,026	166	4,917	654
Adjusted R-squared	0.196	0.111	0.170	0.137	0.189	0.187
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Clustered St. Errors	Yes	Yes	Yes	Yes	Yes	Yes

This table reports the results for the estimation of $Eq.(5)$ substituting $CONS$ with $UCONS$ and using additional control variables. All the variables are as described in Table A. All continuous variables are winsorized at the 99% and 1% levels. ***, **, * denote statistical significance at 1%, 5% and 10% levels. P-values are derived based on robust standard errors clustered at the firm-year level.

Table 13: Moderating effect of unconditional conservatism on the relation between of corporate insiders' profitability and conditional conservatism

VARIABLES	CEO-CFO		Top-5		No Top-5	
	Sale	Purchase	Sale	Purchase	Sale	Purchase
Low Unconditional Conservatism						
CSCORE	-0.581*	-0.250	-0.553**	-0.508	-0.260***	0.198
	(-1.848)	(-0.352)	(-2.602)	(-1.066)	(-4.817)	(0.835)
Observations	225	66	316	78	1,721	277
Adjusted R-squared	0.254	0.086	0.206	0.207	0.265	0.213
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Clustered St. Errors	Yes	Yes	Yes	Yes	Yes	Yes
High Unconditional Conservatism						
CSCORE	-0.330	-1.617	-0.025	-3.923	-0.285**	0.153
	(-0.986)	(-0.409)	(-0.143)	(-1.331)	(-2.313)	(0.388)
Observations	399	41	525	47	2,522	257
Adjusted R-squared	0.166	-0.037	0.139	0.151	0.173	0.130
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Clustered St. Errors	Yes	Yes	Yes	Yes	Yes	Yes

This table reports the results of conditional conservatism on insiders' profitability in the low and high groups ranked by unconditional conservatism. All the variables are as described in Table A. All continuous variables are winsorized at the 99% and 1% levels. ***, **, * denote statistical significance at 1%, 5% and 10% levels. P-values are derived based on robust standard errors clustered at the firm-year level.

Internet Appendix

We present results for the estimation of trade-specific returns following daily transactions of all opportunistic insiders. This table replicates results of Table 3 in Jagolinzer et al. (2011). Averaging trading profitability from sales and purchases represents that risk-adjusted return is positive and statistically significant (0.008; t-stat = 6.845). Moreover, purchase transactions earn positive and statistically significant return (0.083, t-stat = 26.205). In addition, we find that opportunistic insiders do not earn positive return from sales (-0.009, t-stat = -7.952) (Seyhun 1986; Lakonishok and Lee 2001, Jagolinzer et al. 2011).

Table 1: Estimation of corporate insiders' profitability

VARIABLES	All Trades	Purchase Trades	Sales Trades
Trading Profit	0.008***	0.083***	-0.009***
	(6.845)	(26.205)	(-7.952)
α	0.0002***	0.0008***	0.00009***
	(20.401)	(26.205)	(7.951)
$(R_{mrt} - R_f)$	0.903***	0.742***	0.940***
	(419.251)	(125.934)	(413.245)
SMB	0.730***	0.637***	0.750***
	(247.788)	(67.797)	(256.413)
HML	-0.121***	0.007	-0.149
	(-29.484)	(0.522)	(-36.980)
UMD	0.085***	-0.123***	0.131***
	(33.994)	(-18.174)	(49.782)
N	171452	31276	140176
R-squared	0.249	0.189	0.262

 This table presents estimates of trade-specific profits (Trading Profit) and coefficients from estimating transaction-day specific regressions of daily returns on common factors over the 180 days following each transaction as in Jagolinzer et al. (2011) Table 3. ***, **, * denote statistical significance at 1%, 5% and 10% levels.

Table 2: Replication of Sunder et al. 2018 as in *Appendix* 1

VARIABLES	Depend. var. = BTM
LT Growth Forecast	-0.007***
	(-23.298)
Sale Growth	-0.034***
	(-9.975)
Industry Concentration	-0.028**
	(-1.971)
1/Consumer Sentiment Index	161.261***
	(6.975)
1/S&P Index	64.896*
	(1.751)
Profitability	-0.109***
	(-7.612)
Credit Rating	0.027***
	(11.786)
Return Volatility	0.240***
	(13.055)
High Inflation	-0.234***
	(-6.624)
AOCI	0.630***
	(6.056)
Constant	-1.181***
	(-4.638)
Adjusted R-squared	0.247
Year FE	Yes
Industry FE	Yes
Clustered St. Errors	Yes

All continuous variables are winsorized at the 99% and 1% levels. ***, **, * denote statistical significance at 1%, 5% and 10% levels. P-values are derived based on robust standard errors clustered at the firm level.

Table 3: Estimation of corporate insiders' profitability across firms with different level of unconditional conservatism based on Beaver and Ryan (2005)

VARIABLES	CEO-CFO		Top-5		No Top-5	
	Sale	Purchase	Sale	Purchase	Sale	Purchase
UCONS	**0.269****	**0.762*****	**0.249****	**0.869*****	**0.230*****	**0.178**
	(2.594)	(4.009)	(2.304)	(4.426)	(4.158)	(1.468)
$Profit_{t-1}$	-0.287***	-0.207**	-0.255***	-0.237***	-0.144***	-0.203***
	(-5.634)	(-2.417)	(-6.633)	(-3.353)	(-5.573)	(-5.178)
Log(Size)	-0.029	0.199**	-0.038	0.274***	-0.008	0.008
	(-0.688)	(2.851)	(-1.181)	(3.924)	(-0.721)	(0.208)
Leverage	0.029	-0.050	0.023	-0.032	0.024*	0.015
	(0.902)	(-1.349)	(0.929)	(-0.699)	(1.846)	(0.924)
B/M	0.157*	0.235**	0.076	0.314**	0.155***	-0.071
	(1.825)	(2.268)	(1.360)	(2.787)	(5.254)	(-1.577)
Log(1+analyst)	0.033	-0.177*	0.020	-0.177**	0.055***	-0.061**
	(1.429)	(-2.174)	(1.023)	(-2.244)	(6.137)	(-2.452)
Ins. Ownership	0.121	-0.682**	0.142	-0.828**	0.130***	-0.217*
	(1.059)	(-2.287)	(1.478)	(-3.002)	(3.498)	(-1.885)
ROA	0.023	-0.172	-0.039	-0.202	-0.089*	0.026
	(0.237)	(-1.228)	(-0.444)	(-1.401)	(-1.800)	(0.199)
F-test: β_1=0	0.03	0.00	0.04	0.00	0.00	0.17
Observations	953	246	1,291	300	6,608	1,157
Adjusted R-squared	0.111	0.131	0.111	0.142	0.143	0.210
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Clustered St. Errors	Yes	Yes	Yes	Yes	Yes	Yes

To measure unconditional conservatism we follow the modified model of Beaver and Ryan (2005), who measure conservatism by the persistent downward bias in book value of equity. The proxy for the incorporation of information in book value is the coefficient of lagged returns on equity. By introducing the Basu (1997) framework, we avoid the bias in the firm-specific intercept that captures both unconditional and conditional bias and permits isolating the level of unconditional conservatism. The model is as follows:

$$BTM_{i,t} = \alpha_i + \alpha_t + \sum_{j=0}^{6}[\beta_1 D_{i,t-j} + \beta_2 R_{i,t-j} + \beta_3 D_{i,t-j}R_{i,t-j}] + \epsilon_{i,t}, \tag{9}$$

where BTM is the book-to-market value of equity measured at the end of the fiscal period. α_t is a time intercept and α_i is firm-specific measure of unconditional conservatism. This measure is referred as $UCONS$. To assist in interpretation of results we multiply $UCONS$ by -1, so that the higher $UCONS$, the more unconditionally conservative the firm is. To construct this measure, we estimate the above equation annually using a rolling three year window.

All the variables are as described in Appendix A. Since we have lagged values of up to 6 years we extend our sample till 1997 to preserve the sample size. Once we calculate the measure of unconditional conservatism we follow with the original sample: 2003-2014. All continuous variables are winsorized at the 99% and 1% levels. ***, **, * denote statistical significance at 1%, 5% and 10% levels. P-values are derived based on robust standard errors clustered at the firm-year level.

Table 4: Benchmark regression of Table 2

VARIABLES	Benchmark	VARIABLES	
D	-0.050*	$D \times Log(1 + analyst)$	-0.008
	(-2.018)		(-1.331)
RET	-0.157***	$RET \times Log(1 + analyst)$	-0.020
	(-3.728)		(-1.669)
$DR \times RET$	0.135*	$DR \times RET \times Log(1 + analyst)$	0.013
	(1.906)		(0.474)
DS	-0.082***	$D \times Ins.\,Ownership$	0.017
	(-3.757)		(1.082)
$\Delta S_{i,t}/P_{i,t-1}$	-0.034	$RET \times Ins.\,Ownership$	0.029
	(-0.417)		(1.052)
$DS_{i,t} \times \Delta S_{i,t}/P_{i,t-1}$	0.303*	$DR \times RET \times Ins.\,Ownership$	0.022
	(1.978)		(0.335)
B/M	0.061***	$DS \times B/M$	-0.010
	(4.343)		(-0.852)
Log(Size)	0.047***	$\Delta S_{i,t}/P_{i,t-1} \times B/M$	-0.042
	(5.493)		(-1.620)
Leverage	-0.090**	$DS_{i,t} \times \Delta S_{i,t}/P_{i,t-1} \times B/M$	0.045
	(-2.320)		(1.065)
Log(1+analyst)	0.006	$DS \times Size$	0.012***
	(0.773)		(3.714)
Ins. Ownership	0.014	$\Delta S_{i,t}/P_{i,t-1} \times Size$	0.019
	(0.975)		(1.745)
$D \times B/M$	-0.005	$DS_{i,t} \times \Delta S_{i,t}/P_{i,t-1} \times Size$	-0.068***
	(-0.429)		(-3.639)
$RET \times B/M$	0.123***	$DS \times Leverage$	-0.053**
	(3.948)		(-2.296)
$DR \times RET \times B/M$	-0.087*	$\Delta S_{i,t}/P_{i,t-1} \times Leverage$	-0.196***
	(-2.088)		(-3.522)
$D \times Size$	0.007**	$DS_{i,t} \times \Delta S_{i,t}/P_{i,t-1} \times Leverage$	0.376***
	(2.667)		(3.241)
$RET \times Size$	0.021***	$DS \times Log(1 + analyst)$	-0.016*
	(3.626)		(-1.822)
$DR \times RET \times Size$	-0.025*	$\Delta S_{i,t}/P_{i,t-1} \times Log(1 + analyst)$	-0.014
	(-2.103)		(-0.397)
Observations		25,081	
Adjusted R-squared		0.417	
Year FE		Yes	
Firm FE		Yes	
Clustered St. Errors		Yes	

This table presents results of the benchmark estimation of *Eq.*(3). All the variables are as described in Table A. All continuous variables are winsorized at the 99% and 1% levels. ***, **, * denote statistical significance at 1%, 5% and 10% levels. P-values are derived based on robust standard errors clustered at the firm-year level.

Table 5: Benchmark regression of Table 3 and Table 6

VARIABLES	CEO-CFO		Top-5		No Top-5	
	Sale	Purchase	Sale	Purchase	Sale	Purchase
Log(Size)	-0.032*	0.033	-0.022	0.025	-0.013	0.035*
	(-2.013)	(1.231)	(-1.595)	(0.976)	(-1.534)	(2.158)
Leverage	0.036*	0.021	0.027*	0.013	0.029***	0.009
	(2.089)	(1.263)	(2.163)	(0.849)	(3.749)	(1.080)
B/M	0.135***	-0.031	0.127***	-0.030	0.118***	-0.087***
	(5.608)	(-0.799)	(6.297)	(-0.906)	(9.890)	(-3.740)
Log(1+analyst)	0.067***	-0.124***	0.048***	-0.119***	0.061***	-0.071***
	(5.009)	(-4.845)	(4.533)	(-4.902)	(9.623)	(-6.173)
Ins. Ownership	0.191***	-0.358***	0.196***	-0.384***	0.152***	-0.267***
	(6.158)	(-4.385)	(6.577)	(-4.653)	(5.247)	(-6.232)
ROA	-0.032	0.064	-0.014	0.061	-0.034	0.049
	(-0.674)	(0.762)	(-0.300)	(0.731)	(-0.741)	(0.693)
Observations	3,897	1,432	4,806	1,676	12,730	4,424
Adjusted R-squared	0.137	0.114	0.136	0.109	0.122	0.095
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Clustered St. Errors	Yes	Yes	Yes	Yes	Yes	Yes

This table reports the results for the estimation of $Eq.(5)$. All the variables are as described in Table A. All continuous variables are winsorized at the 99% and 1% levels. ***, **, * denote statistical significance at 1%, 5% and 10% levels. P-values are derived based on robust standard errors clustered at the firm-year level.

Table 6: Benchmark regression of Table 4 and Table 7

VARIABLES	CEO-CFO		Top-5		No Top-5	
	Sale	Purchase	Sale	Purchase	Sale	Purchase
$\Delta Log(Size)$	0.316***	-0.155*	0.243***	-0.268***	0.233***	-0.218***
	(7.683)	(-1.944)	(6.983)	(-3.604)	(11.363)	(-4.293)
$\Delta Leverage$	0.026	-0.053	0.016	-0.048	0.011	-0.049
	(1.264)	(-1.469)	(0.524)	(-1.285)	(0.484)	(-1.629)
$\Delta B/M$	0.187**	0.046	0.015	-0.147	0.068**	0.020
	(2.452)	(0.509)	(0.274)	(-1.385)	(2.762)	(0.282)
$\Delta Log(1+analyst)$	-0.070**	0.015	-0.055**	0.037	-0.004	0.007
	(-2.862)	(0.218)	(-2.687)	(0.547)	(-0.307)	(0.173)
$\Delta Inst.Ownership$	-0.002	0.086	0.114	-0.010	-0.031	0.147
	(-0.013)	(0.240)	(0.978)	(-0.034)	(-0.694)	(1.299)
ΔROA	-0.169**	-0.116	-0.093	-0.084	0.083	-0.085
	(-2.467)	(-0.616)	(-1.585)	(-0.412)	(1.766)	(-0.509)
Observations	1,028	269	1,408	305	6,440	1,025
Adjusted R-squared	-0.070	-0.297	-0.088	-0.255	0.017	-0.063
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Clustered St. Errors	Yes	Yes	Yes	Yes	Yes	Yes

This table reports the results for the estimation of $Eq.(7)$. In particular, we study the association between current changes in conservatism and future changes in insiders' profitability. All continuous variables are winsorized at the 99% and 1% levels. ***, **, * denote statistical significance at 1%, 5% and 10% levels. P-values are derived based on robust standard errors clustered at the firm-year level.