Conditional Conservatism and Management Earnings Forecasts*

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Abstract

We study the links between conditional conservatism and voluntary disclosure of management private information. We argue that conditional conservatism acts as a mechanism that lends credibility to voluntary disclosure by providing a 'hard' reporting benchmark that allows outsiders to better evaluate the truthfulness of management forecasts. Using a large sample of US firms we show that more conditionally conservative firms issue more good news forecasts; serial correlation in consecutive management forecasts errors is smaller for more conservative firms; and market reactions are stronger. Indicating greater credibility of 'hard' voluntary disclosure issued by more conservative firms. We do not find evidence of the confirmatory role of conservatism for 'soft' voluntary disclosures.

Keywords: Conditional conservatism, management forecasts, voluntary disclosure, credibility.

JEL: G30, M41

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1. Introduction

We test the hypothesis that conditional conservatism and voluntary disclosure of management's private information are complements. Conditional conservatism in accounting stems from the asymmetric verifiability requirements that result in economic losses being recognized in a more complete and timelier manner than gains (Basu 1997). LaFond and Watts (2008) argue that in the presence of uncertainty conditional conservatism has an information role. First, conservatism acts as a governance mechanism that reduces managerial incentives and ability to manipulate accounting earnings. Second, conservative accounting provides a benchmark for current performance that enables other sources of information to produce credible information. This idea that financial statements discipline other sources of information (including management-initiated disclosures) is not novel (see, e.g., Ball (2001), Watts (2006)), but has received limited empirical attention and, as noted in Ball et al. (2012), little is known about how firms credibly commit to different levels of disclosure of private information.

Theoretically, voluntary disclosure can play an informational role if there is a mechanism that allows managers to truthfully disclose their private information. Otherwise, unverifiable disclosures are uninformative in equilibrium (Crawford and Sobel 1982). In this paper, we empirically test the confirmatory role of conditional conservatism over voluntary disclosure. In particular, we focus on the links between firm commitment to conditional conservatism and management guidance behavior. If conservatism, by delaying (accelerating) the accounting *recognition* of good (bad) news, lends credibility to managerial *disclosure*, we expect that more conditionally conservative firms (a) disclose good news more frequently; and (b) third parties lend greater credibility to such firm-initiated disclosures.

Although no prior research directly tests our predictions, the existing literature offers theoretical support for them.[1] For example, Guay and Verrecchia (2007) analytically demonstrate that firm commitment to a conditionally conservative reporting system, combined with voluntary dis-

[1] With the exception of ..

closure of good news, leads to full disclosure, whereby all news about the firm are communicated to markets in a timely manner, lowering the discount applied by markets in the presence of uncertainty. A further link between conditional conservatism and good news disclosure that also lends support to the aforementioned predictions is explored in Bertomeu and Marinovic (2016). These authors model optimal disclosure via hard verifiable information and soft disclosures, and predict that hardness in financial statements and soft disclosure might be complementary.

Using a large sample of US publicly-listed firms for the period 2001-2017, we test if firm commitment to conditional conservatism (i.e. an ex-ante managerial choice that prevents aggressive accounting) triggers the disclosure of good news and lends credibility to management forecast disclosures. In line with prior research we consider conservatism as "being exogenous and predetermined for the current generation of managers" (García Lara et al. 2016, p. 225). We measure commitment to conditional conservatism using the decile ranking of the average past three years of the 'modfified $C_S core$' measure developed by Badia et al. (2021). This measure takes into account how firm-specific characteristics affect conditional conservatism over time and account for known biases in the Basu's measure of conditional conservatism (Dietrich et al. 2007, Beaver and Ryan 2009, Patatoukas and Thomas 2011, Breuer and Windisch 2019).

First, we use Badia et al. (2021) proxy to examine the association between conditional conservatism and management forecasts. Then, we assess the effects of conservatism over the credibility of management forecasts. Credibility is a subjective attribute of disclosure, related to investors' appraisal of the believability of a given disclosure (Jennings 1987). We follow prior work Rogers and Stocken (2005), Ball et al. (2012), Ng et al. (2013) and study management forecasting behavior and the market reaction to those forecasts, to provide evidence on whether forecast credibility increases in the commitment to conditional conservatism.

We report the following key findings. First, we find that conditional conservatism is positively associated with higher frequency of good news and informative management earnings forecasts. Next, we look into the serial correlation of forecasts errors for quarterly management earnings forecast for the same fiscal quarter in consecutive years, becasue managers worried about keeping

a reputation as credible forecasters are more likely to incorporate the information in prior forecast errors into current earnings forecats (Williams 1996, Hirst et al. 1999, Hutton and Stocken 2021, Ng et al. 2013). We find significantly smaller serail correlation in management forecast errors of consecutive forecasts for more conservative firms. This is consistent with managers in more conservative firms incorporating the information in past forecast errors into their current earnigns expectations Xu (2009), Gong et al. (2011).

Then, we focus on the short-term and subsequent market reaction to management forecasts. This permits assessing the credibility of management-initiated earnings forecasts. Prior literature suggests that market reactions to management forecasts depend on (1) the magnitude of the news contained in the forecast and (2) the extent to which the forecast is perceived as credible (Jennings 1984, 1987, Ng et al. 2013). Controlling for the magnitude of the news as well as for other determinants of credibility Ng et al. (2013), we find that initial market reaction to management earnings forecasts is the same for firms in the bottom and top decile of *CO_RANK*, but if we conisder the post-guidance market reaction, there is a significante reversion of the initial stock market reaction equal for firms in the bottom decile of *CO_RANK* but not for firms in the top decile. The overall reaction to a one standard deviation of earnings news the longer time window (i.e., $CAR_{[-1,+26]}$) is equal to 0.45% for firms the bottom decile of *CO_RANK* compared to a 2.74% for firms in the top decile of *CO_RANK*.

Finally, we consider the market reaction to 'soft' disclosures. Following Ball and Shivakumar (2008) methodology, and collecting data reagrding 'soft' disclosures (e.g., product announcements, client announcements, etc.) from Capital IQ's *Key Developments* database we do not find evidence of a stronger market reaction for 'soft' disclosures issued by more conditionally conservative firms.

Our paper makes a number of contributions to the literature. First, we contribute to the literature investigating conditional conservatism and voluntary disclosure, by providing novel evidence consistent with conditional conservatism acting as a mechanism that disciplines disclosure and allows other sources of information to thrive. We document a complementary relation between conditionally conservative reporting and voluntary managerial disclosure of earnings information.

This is consistent and adds to the prior line of research that studies the beneficial consequences of conservatism in accounting (e.g., Guay and Verrecchia (2007), LaFond and Watts (2008)).

There is no prior work directly examining the 'confirmatory role' of conditional conservatism. However, the work of Hui et al. (2009), D'Augusta (2018), and D'Augusta and DeAngelis (2020) are closely associated. Hui et al. (2009) study the relation between unconditional conservatism and management forecasts, taking a different theoretical and empirical stance. They argue that conservatism reduces information asymmetries between managers and shareholders, and thus, serves as a *substitute* to management forecasts. Whilst this would hold for bad news disclosure, where timely recognition of losses could plausibly substitute for its timely disclosure, we argue that it cannot hold for good news, as conservatism delays the recognition of good news, and thus, cannot act as a substitute for timely good news disclosure. A second fundamental difference with Hui et al. (2009) is that they focus on unconditional conservatism (i.e. news independent). It is unlikely that this type of conservatism bears a contracting/information role (see, e.g., Beaver and Ryan (2005), Ball and Shivakumar (2005)). Perhaps closer to our paper is D'Augusta (2018), who finds that conservatism is associated with a stronger (attenuated) market reaction to good (bad) news earnings forecasts. The main difference between our study and D'Augusta (2018) is that we focus in quarterly earnings forecasts and D'Augusta (2018) focus on annual earnings forecasts, realtive to a quarterly setting, in an annual setting firms could committ to credible disclosure by engaging in higher levels of audit verification (Ball et al. 2012). In an annual setting commiting to higher levels of audit may confound the effects of conditional conservatism on the market reaction to earnings forecats. Moreover, despite conisdering conservatism "as an additional mechanism to enhance good news forecasts' credibility" (D'Augusta 2018, p. 6), they fail to control for the other mechanisms (e.g., past accuracy) that lend credibility to management forecasts (Rogers and Stocken 2005, Ng et al. 2013). Also relevant to our study is the work of D'Augusta and DeAngelis (2020), which reports a negative association between conditional conservatism and tone management in the Management Discussion and Analysis (MD&A) section of 10K filings. This is consistent with conservatism acting as a disciplining mechanism of softer sources of disclosure. Different from D'Augusta and

DeAngelis (2020), we study the market reactions to non-financial disclosures which convey 'soft' information that have no direct link with future earnings and/or may not be quantifiable, but could facilitate market participants learning about firm's fundamentals.

The remainder of the paper is organized as follows. Section 2 revises prior literature and develops our main predictions. Section 3 describes our research design and empirical results. Sections 4 summarizes and concludes our study.

2. Conditional Conservatism and Voluntary Disclosure

The existence of asymmetric verifiability requirements for the recognition of economic gains and losses in financial statements means that economic losses (bad news) and economic gains (good news) are treated asymmetrically, particularly when the news is hard-to-verify. This leads to differential timeliness and persistence of good *versus* bad news, with bad news being recognized in a timelier and more complete manner than good news (Basu 1997). The extant prior literature refers to this form of conservatism as conditional conservatism.[2]

In this section, we outline our main hypothesis that conditional conservatism disciplines managerial voluntary disclosure, influencing its timing and credibility. We start by reviewing the general literature that establishes that financial reporting quality acts a as mechanism through which managers can commit to truthful disclosure of private information.

2.1. Financial Reporting and Voluntary Disclosure as Complements

At the core of financial reporting is the concept of decision usefulness. The *International Accounting Standards Board*, in its Conceptual Framework (developed within the IASB-FASB joint project), notes that financial information is capable of making a difference in decisions "if it has predictive value, confirmatory value or both" (IASB 2010, QC7). Confirmatory value means

[2]See Beaver and Ryan (2005) for an explanation of the difference between conditional and unconditional conservatism. Ball and Shivakumar (2005) argue that conditional conservatism has contracting value while unconditional conservatism only introduces a bias into reported earnings and reduces the scope for conditional conservatism.

that financial information can provide feedback about (confirms or changes) previous evaluations.[3] While largely unexplored by empirical research, the confirmatory role of financial accounting is key to understand the relation between financial statements and other information sources (Cascino et al. 2021). For example, current reported revenue can be used as the basis for predicting future revenues, but importantly, it can also be used to compare it with revenue predictions for the current year that were made in past years using management forecasts as well as other industry- and market-wide information sources. Such comparisons, if unfavorable, would lead to corrections in the processes used by third parties in considering the information disclosed by the firm.

This confirmatory role of accounting implies that high quality financial reporting disciplines managerial voluntary disclosure both *ex-ante* and *ex-post*. Reported current period figures (earnings, revenues, cash flows, etc.) are observed by third parties, who can then detect deviations with respect to management forecasts issued in the past and assess the accuracy of prior voluntary disclosure. Boards, analysts and other interested parties can then question management on detected deviations *ex-post*. In turn, managers, aware that their forecasts will come under such scrutiny will make more truthful and informative disclosures *ex-ante*.

The above argumentation implies that the disciplining role over disclosure is increasing in the extent to which the accounting regime imposes that actual outcomes are accurately reported and lowers the opportunities to misreport current performance. Ball et al. (2012) provide evidence consistent with this claim. They build on Crawford and Sobel (1982) and argue that voluntary disclosure of information privately known to the firm can only play an informational role if there is a mechanism that allows managers to credibly commit to truthful disclosure. Ball et al. (2012) argue that a primary role of financial reporting is to supply information to use in efficient contracting and in particular, they propose that firms can make different commitments to truthful disclosure by choosing different levels of audit of financial outcomes, as measured by audit fees. They show that commitment to higher audit verification levels is associated with better quality disclosure, as

[3] As noted in the conceptual framework, predictive and confirmatory value are interrelated, and information with predictive value often also has confirmatory value.

measured by the frequency, specificity, accuracy and timeliness of management earnings forecasts.

The underlying idea that financial statements discipline disclosure appears in Ball (2001), Watts (2006) or LaFond and Watts (2008), who argue that financial reports based on independent verifiable outcomes provide investors with a hard benchmark against which to compare the credibility of other sources of information. Similarly, a number of analytical papers develop models in line with the hypothesis that mandatory reporting complements voluntary disclosure, or more generally, that 'hard' verifiable information and 'soft' disclosure have a complementary relationship (Gigler and Hemmer 1998, Bertomeu and Marinovic 2016). However, little empirical research to date has explored the mechanisms that managers can use to credibly commit to truthful disclosure of private information. Exceptions include the work of Ball et al. (2012) and Beniluz (2005).[4] Both papers find evidence consistent with the view that accounting disciplines disclosure. In particular, Beniluz (2005) finds a negative relation between accounting quality, as measured using earnings management proxies, and the optimistic biases in both analysts and management earnings forecasts.

Finally, albeit not directly addressing this issue, a number of recent papers also report evidence of a positive association between accounting quality as measured by earnings quality and the incidence, frequency, and accuracy of voluntary disclosure (Lennox and Park 2006, Francis et al. 2008, Gong et al. 2009), which is suggestive of reporting and disclosure acting as complements.

2.2. Conditional Conservatism and the Timing and Credibility of Managerial Voluntary Disclosure

In the absence of mechanisms that permit commitment to truthful disclosure, managers are expected to act strategically and use their private information for their own interests. This would lead to the prediction that voluntary disclosure focuses on news that emphasize positive aspects and affect stock prices favorably, while de-emphasizing negative news (Dye 1985, Verrecchia 1983).

Against this backdrop, we argue that conditional conservatism is an efficient mechanism that

[4]Some recent findings suggests that certain features of mandatory reporting and disclosure may be substitutes of voluntary disclosure. For example, Guay et al. (2016) argues and shows that greater complexity in mandatory disclosure (as measured by information readability) is associated with greater voluntary disclosure.

directly disciplines managerial disclosure. Conservatism imposes lower (higher) verification standards for the recognition of losses (gains). This results in the recognition of losses that managers would be unwilling to report otherwise. Conditional conservatism thereby reassures outside investors that unverifiable gains will not be overemphasized and that losses will not be under-reported, providing a 'hard' benchmark for current earnings.[5] Indeed, by imposing timely and complete recognition of bad news, third parties interested in the firm can directly assess the truthfulness of past management forecasts of current figures by comparing them with realized outcomes. If managers have been optimistic in their disclosures, conditional conservatism accelerates the discovery of poor quality disclosure, improving monitoring *ex-post*, i.e., it permits a wide range of financial statements users, from boards of directors to lenders or analysts, to detect and question managers on deviations between forecasts and realizations. Recurrent deviations could, in the best case scenario, be interpreted as a sign of low managerial ability in forecasting, and in the worst case scenario, of managerial deceit. Knowing that conservatism negates the possibility of delaying the recognition of losses, and therefore, that optimistic forecasts will come under scrutiny in the short-term, means that conditional conservatism also deters managers from issuing untruthful disclosure *ex-ante*, as any unwarranted optimism unravels immediately: as soon as the outcomes realize.

Hence, conditional conservatism enhances the confirmatory role of accounting directly, because of its disciplining *ex-ante* and *ex-post* roles. In addition, conditional conservatism is predicted to enable disclosure and enhance its credibility indirectly at least through two channels.

First, conditional conservatism lowers managerial ability to misreport current performance. As noted above, the extent to which managers are able to misreport lowers the disciplining value of

[5]To illustrate, consider the case of a pharmaceutical firm. If a medication is discovered to have side effects, the news would be recognized if it is bad (i.e., the treatment cures headaches but causes liver failure) by writing off any associated R&D assets and recognizing a provision for the firm best estimate of its expected future payments to those affected. That is, bad news is recognized in a timely and complete manner. However, if the news is good (i.e., the treatment cures headaches and also, acne), its recognition would be delayed until the increased sales and cash flows accrue to the firm. It would then be up to the firm to voluntarily disclose its best estimate of the expected value of this good news. In both scenarios, firms' commitment to conditional conservatism would reassure outside investors that good news are not overemphasized and that bad news are not under-reported.

accounting. Watts (2003) and LaFond and Watts (2008) argue that managers have incentives to overemphasize unverifiable gains but tend to be unwilling to report on unverifiable losses. Conditional conservatism, by imposing lower verification standards for the recognition of losses relative to gains, acts as a governance mechanism that reduces managerial incentives and ability to manipulate earnings. García Lara et al. (2020) study the links between earnings management and conditional conservatism and provide empirical support for this claim, while a number of studies provide evidence indicating that more conditionally conservative firms provide more accurate and reliable information. Particularly, conservatism is associated with improvements in the firm information environment, as indicated by lower cost of equity (García Lara et al. 2011), lower cost of debt and better assessment of default risk for lenders (Ahmed et al. 2002, Wittenberg-Moerman 2008), and decreases in information asymmetry (Francis et al. 2013, Kim et al. 2013). Conservatism is also associated with better corporate governance (Beekes et al. 2004, Ahmed and Duellman 2007). Overall, this body of research shows that conditional conservatism acts as a governance mechanism that improves contracting and lowers agency costs.

Second, conditional conservatism indirectly influences disclosure through its consequences over managerial decision-making. Prior literature indicates that conditional conservatism is useful to monitor and discipline managers, as it improves investment efficiency (Francis and Martin 2010) and facilitates firm access to financing sources (Bhattacharya et al. 2003, Zhang 2008). Conservatism has also been shown to lower stock price crash risk (Kim and Zhang 2016), to improve the alignment of managerial decisions-making with shareholders' incentives (Louis et al. 2012), and to lead to higher SEO announcement returns due to lower financing costs in SEOs (Kim et al. 2013). Thus, conditional conservatism is expected to affect the underlying distribution of economic gains and losses (good and bad news), through better decision-making.

There is no prior empirical work directly studying our predictions. D'Augusta and DeAngelis (2020) provide empirical evidence suggesting that conditional conservatism lessens tone management in the MD&A section of the 10K filings of industrial companies, consistent with a disciplining role of conditional conservatism. Also related is the work of Hui et al. (2009), who study

the links between conservatism and management forecasts, but focusing on unconditional conservatism, a news independent type of conservatism (Beaver and Ryan 2005, Ball and Shivakumar 2005).[6] This choice leads them to predict and report evidence that unconditional conservatism serves as a *substitute* to management forecasts. Whilst this may hold partially for realized bad news disclosure, where timely recognition of losses could substitute for timely disclosure, it does not hold for forward-looking disclosure of bad news or for good news disclosure, as conservatism delays the recognition of good news, and thus, cannot act as a substitute for timely good news disclosure. In agreement with this view, Jaggi et al. (2014) argue that Hui et al. (2009) results do not consider the heterogeneity in management forecasts, questioning the links between unconditional conservatism and management forecasts.[7] Perhaps closer to our argumentation is the theoretical work of Guay and Verrecchia (2007), who argue that in the presence of uncertainty, markets apply a discount to firm value because managers have incentives to act strategically (i.e. withhold bad news and disclose good news) when there is no mandatory disclosure requirements. They show that commitment to timely recognition of bad news, together with voluntary disclosure of good news results in full disclosure. Full disclosure implies that all news concerning firm value are more timely communicated to markets (i.e. no information is withheld), reducing the discount that markets apply in the presence of uncertainty. The theoretical model by Guay and Verrecchia (2007) suggests a complementary relationship between conditional conservatism and voluntary disclosure in communicating firm information.

2.3. Main Predictions

Given the above discussion, we hypothesize that conditional conservatism disciplines and enhances the credibility of management earnings forecasts. This hypothesis leads to the following

[6] They use the bias component of the book-to-market ratio as in Beaver and Ryan (2000), the negative accruals proxy of Givoly and Hayn (2000) and the C-score of Penman and Zhang (2002).

[7] Also related is the study of Li (2008), who argues that managers incentives to meet or beat analysts' forecasts lead them to issue more voluntary disclosure to inform analyst about the downward bias in earnings caused by unconditional conservatism, and induce a downward revision of analysts' forecasts. While Sun and Xu (2012) claim that management failure to fully incorporate historical accounting conservatism effects on realized earnings results in optimistically biased management forecasts.

empirical predictions. First, if conditionally conservative reports asymmetrically recognize unrealized gains and losses, with bad news being recognized in a more timely and complete manner, we expect that managers of more conditionally conservative firms will voluntarily issue more good news information. Conditional conservatism imposes delayed good news recognition, i.e., often times, good news are not recognized until their associated cash flows are realized. This means that, by construction, conditionally conservative firms are unlikely to have (internally known) unrealized bad news they need to disclose to markets, as bad news are recognized in the firm financial statements more timely. In contrast, if the firm has (internally known) unrealized gains, the constraints imposed by conditional conservatism to the recognition of gains imply that the only way to communicate the good news to the market is thorough voluntary disclosure. Accordingly, our first prediction is:

> **P1:** *Conditional conservatism is positively (negatively) associated with managerial voluntary disclosure of good (bad) news information.*

Although this prediction might seem naïve, there are several reasons why is not obvious that more conditional conservative firms will disclose more good news information. First, committing to timely and complete recognition of bad news does not mean that firms will 'fabricate' future good news by overestimating the amount of recognized bad news. Against the common misconception that conditional conservatism is an income decreasing form of earnings management, García Lara et al. (2020) find evidence consistent with conditional conservatism limiting downward accruals manipulation. Second, conditional conservatism does not eliminate incentives to meet-or-beat earnings (MBE) benchmarks, and sufficiently high MBE incentives may lead to more bad news disclosure (Konrad 2018). Moreover, it is not clear that debt-contracting incentives associated with conservatism will lead to more good news disclosures, given that bondholders might have more direct mechanisms to obtain firm information. Finally, one could argue that lower commitment to conditional conservatism could allow more room for managers to manipulate earnigns to meet/beat their forecast, and predict that less conservative firms will issue more earnings forecasts.

Second, if conditional conservatism disciplines managerial disclosures and deters managers from issuing untruthful disclosure, we expect firms that commit to more conditional conservative reporting to engage in more informative voluntary disclosure. Accordingly, our second prediction is:

> **P2:** *Conditional conservatism is positively associated with informative voluntary disclosure.*

Third, managers concerned with developing and mainataining a reputation for issuing credible forecasts are more likely to incorporate the information in prior forecast errors into current earnings forecats (Williams 1996, Hirst et al. 1999, Hutton and Stocken 2021, Ng et al. 2013), if managers fully incorporate information in prior forecast errors into their earnigns expectations and disclose earnings forecasts truthfully, then the serial correlation between management earnings forecast errors should be zero (Gong et al. 2011). Then, if conditional conservatism lends credibility to management earnings forecats we expect forecasts issued by more conditionally conservative firms to exhibit less serial correlation in forecast errors, observing persistent biases in management forecasts could reflect managers' strategic disclosure incentives. This leads to our third prediction:

> **P3:** *Conditional conservatism is associated with less serial correlation in consecutive management forecast errors.*

Concerns regarding management forecasts credibility exist despite managers incentives to align market expectations (Ajinkya and Gift 1984) and build a reputation for issuing credible forecasts (Hutton and Stocken 2021), because managers also face incentives to issue biased earnings forecasts (Healy and Palepu 2001, Graham et al. 2005, Hirst et al. 2008, Kim and Park 2012). If the market discounts management earnings forecasts news because of its perceived credibility Ng et al. (2013), then we expect a stronger short-term market reaction to more credible forecasts.

Early research on the credibility of management earnings forecasts suggests that good news are less credible than bad news (Skinner 1994, Hutton et al. 2003, Mercer 2004, Hirst et al. 2008),

which would imply that the role of conditional conservatism in enhancing the credibility of management earnings forecasts is more relevant for good news. However, bad news forecasts are not exempt from credibility concerns. In particular, managers face strong incentives to manipulate expectations downwards to meet/beat analyst estimates (Graham et al. 2005). Furhermore, recent studies find less support for the claim that bad news are inherently more credible than good news (Rogers and Stocken 2005, Hurwitz 2010, Merkley et al. 2013). Therefore, we expect conditional conservatism to enhance credibility of both, good and bad news management forecasts. Then, our fourth prediction is as follows:

P4: *Conditional conservatism is associated with a stronger short-term market reaction to management forecast news.*

The above prediction relies on the assumption that the market's discount of earnigns forecasts news is correct. However, to the extent that the market fails to properly assess the credibility of management forecasts the short-term market reaction to the guidance may result in an over- or underreaction followed by a subsequent reversal. If conditional conservatism lends credibility to management forecasts then we predict:

P5: *Conditional conservatism is associated with a lower subsequent stock price correction of the initial short-term market reaction to management forecast news.*

Finally, LaFond and Watts (2008) argue that conditional conservatism allows other sources of information to flourish, by providing a hard benchmark that "makes it possible for alternative 'soft' sources to generate credible information on unverifiable gains" (LaFond and Watts 2008, p. 452). However, to the extent that other 'soft' sources of information (e.g., product announcements) are not well-defined nor directly linked to the financial statements we expect the confirmatory role of conditional conservatism to be weaker (Ball et al. 2012). Then our last prediciton is:

P6: *The confirmatory role of conditional conservatism is weaker for soft voluntary disclosures.*

3. Research Design and Empirical Results

3.1. Voluntary Disclosure Measures

3.1.1. Quarterly Management Earnings Forecasts

We focus on quarterly management earnings forecasts as our proxy of voluntary disclosure for different reasons. First, management earnigns forecasts are a key source of information to financial analysts and investors (Graham et al. 2005, Hirst et al. 2008, Brown et al. 2015). Second, in order to test the confirmatory role of conditional conservatism we need a measure of voluntary disclosure that is well-defined and directly linked to the financial statements, in other words there should be a hard benchmark against wich to compare the information provided by the voluntary disclosure (LaFond and Watts 2008). Third, the magnitude of forecasts's news conveyed by the voluntary disclosure can be calculated by comparing management forecasts with the analysts consensus estimate, allowing a cleaner test of the confirmatory role of conditional conservatism since we can estimate the market reaction to management forecast conditional on the forecasts's news magnitude. Finally, since quarterly financial statements are not required to be audited managers can not rely on independent audits as a mechanism to enahance financial statement verification (Ball et al. 2012), however in this setting conditional conservatism is a mechanism by which managers can commit to truthful disclosure of thier private information.

3.2. Conditional Conservatism Measure

To test our predictions we use the 'modfified C_Score' measure developed by Badia et al. (2021) which is an improved version of the Khan and Watts (2009) measure of conditional conservatism. Badia et al. (2021) introduce a series of changes to the estimation of the Basu (1997) model to account for known biases in the Basu's measure of conditional conservatism (e.g., Dietrich et al. 2007, Patatoukas and Thomas 2011, Beaver and Ryan 2009, Breuer and Windisch 2019).

First, they estimate Basu (1997) model using unexpected earnings and unexpected returns because conditional covariances between expected earnings and returns create asymmetric timelines that is not attributable to conditional conservatism (Ball et al. 2013b, Patatoukas and Thomas

2016). Second, they include return variance in the model, linearly and interacted with unexpected returns and negative unexpected returns, to control for the effects of return variance on the sensitivity of earnings to returns, wich generate concavity/convexity in the earnings-return relation not associated with conditional conservatism (Patatoukas and Thomas 2011, Beaver and Ryan 2009, Lawrence et al. 2018, Breuer and Windisch 2019). Finally, Badia et al. (2021) include interactive controls for the martket-to-book ratio to control for the effects of uncoditional conservatism and prior application of conditional conservatism (Roychowdhury and Watts 2007, Lawrence et al. 2013, Roychowdhury and Martin 2013).[8] Despite not controlling for all potential biases in the estimation if the asymmetric timelines measure of conditional conservatism, Badia et al. (2021) provide evidence that the the 'modfified C_Score' is a well-specified and powerful measure of conditional conservatism.

To obtain the 'modfified C_Score' at the firm-year level we estimate the next model following Badia et al. (2021):

$$\begin{aligned} UX_{i,t} =& \beta_0 + \beta_1 D_{i,t} + \beta_2 SIZE_{i,t-1} + \beta_3 MTB_{i,t-1} + \beta_4 LEV_{i,t-1} + \beta_5 D_{i,t} SIZE_{i,t-1} + \\ & \beta_6 D_{i,t} MTB_{i,t-1} + \beta_7 D_{i,t} LEV_{i,t-1} + \beta_8 UR_{i,t} + \beta_9 UR_{i,t} SIZE_{i,t-1} + \\ & \beta_{10} UR_{i,t} MTB_{i,t-1} + \beta_{11} UR_{i,t} LEV_{i,t-1} + \beta_{12} D_{i,t} UR_{i,t} + \beta_{13} D_{i,t} UR_{i,t} SIZE_{i,t-1} + \\ & \beta_{14} D_{i,t} UR_{i,t} MTB_{i,t-1} + \beta_{15} D_{i,t} UR_{i,t} LEV_{i,t-1} + \beta_{16} VAR_{i,t} + + \beta_{17} D_{i,t} VAR_{i,t} + \\ & \beta_{18} UR_{i,t} VAR_{i,t} + \beta_{19} D_{i,t} UR_{i,t} VAR_{i,t} + e_{i,t} \end{aligned} \tag{1}$$

Where the dependent variable, UX, is unexpected earnings scaled by lagged price, UR are unexpected returns, and D is a dummy variable equal to one if unexpected returns are negative and zero otherwise, $SIZE$ is the natural log market value of equity, MTB is the market-to-book ratio, LEV is total debt scaled by market value of equity, and VAR is the variance of daily stock returns over the year. As in Khan and Watts (2009) we estimate equation (1) annualy and use the annual

[8] Badia et al. (2021) also propose to estimate Basu (1997)'s model including firm-fixed effects, but for the purpose of measuring conditional conservatism at the firm-year level firm fixed-effects need to be excluded. See Badia et al. (2021)'s online appendix section OA.6.

coefficient estimates to calculate Badia et al. (2021)'s 'modified C_Score' for each firm-year as:

$$mod\_C\_SCORE = \beta_{12} + \beta_{13} SIZE_{i,t-1} + \beta_{14} MTB_{i,t-1} + \beta_{15} LEV_{i,t-1} \quad (2)$$

Then, we take the three-year average of *mod_C_SCORE* (i.e., the incremental timeliness to bad news) and define our proxy for conditional conservatism as the annual decile of this average. We denote this measure as *CO_RANK*. Taking the three-year average helps us to better capture firm commitment to conditionally conservative financial reporting, using the decile rank mitigates measurement errors and nonlinearity concerns, facilitating the interpretation of our results. As in García Lara et al. (2016) we consider conditional conservatism (i.e. an ex-ante commitment that prevents aggressive accounting) to be predetermined for current managers. In line with this view, reporting conservatism is expected to be stable over time Givoly et al. (2007), and prior literature show that conservatism measures are fairly stable at the firm level (Khan and Watts 2009, Callen et al. 2010).

3.3. Conditional Conservatism and Management Forecast Disclosure

In order to test our first two predictions (P1 and P2) we estimate the following model:

$$Y_t = \beta_0 + \beta_1 CO\_RANK_{t-4} + \sum \gamma_k Controls_{k,t-4} + \varepsilon_t \quad (3)$$

Where CO_RANK_{t-4} is our measure of conditional conservatism and Y_t is either $GOOD\_NEWS_t$, BAD_NEWS_t, or $INFO_t$. $GOOD\_NEWS_t$ (BAD_NEWS_t) is an indicator variable set to one if the difference between management forecasts and the last analysts' mean consensus forecast is positive (negative) and greater than \$0.01, and zero if the firm is not making a forecasts in the quarter. We consider the last quarterly forecast for the next quarter's earnings issued within a window of (-90, 0) days, where day 0 is the fiscal quarter-end date. We exclude forecasts made after the fiscal quarter-end because this are more likely earnings pre-announcements rather than forecasts Hirst et al. (2008). We also exclude open-ended management forecasts because it is

impossible to measure the magnitude of earnings news precisley for these forecasts.[9]

According to P1 we expect β_1 in model (3) to be positive and significant for good news disclosures. In contrast, if timely recognition of losses acts as substitute for timely disclosure of losses, we expect a negative β_1 for bad news disclosures. A positive (negative) β_1 for good (bad) news disclosure implies that conditional conservatism acts as a complement for timely voluntary disclosure of good news and a substitute for timely disclosure of losses.

With the benefit of hindsight we can identify those forecasts that were indeed informative to analysts in the sense that if they have followed the management forecast their estimates would have been closer to subsequent actual earnings (Ajinkya and Gift 1984, Kim and Park 2012). Then we define $INFO_t$ as an indicator variable set to one if the management forecast guided analyst expectations closer to the actual earnings. According to P2 we expect β_1 in model (3) to be positive and significant.

We follow prior literature to control for other determinants of management forecast frequency. We control for firm size ($SIZE$) as the costs of voluntary disclosure decrease as firms' size increase (Lang and Lundholm 1993, Kasznik and Lev 1995, Baginski and Hassell 1997); book-to-market (BTM) to take into account the effects of growth opportunities on firm's voluntary disclosure behavior (Bamber and Cheon 1998); return on assets (ROA) to control for earnings performance effects on disclosure (Miller 2002); number of analyst following ($ANALYST$) and institutional ownership ($INST$) to proxy for the demand for firm forward-looking information, a positive association is expected (Ajinkya et al. 2005, Healy and Palepu 2001, Hirst et al. 2008); analysts forecast dispersion (DIS) is expected to be negatively associated with management earnings forecasts because managers might perceive that earnings are harder to predict (Healy and Palepu 2001, Ajinkya et al. 2005); earnings volatility (S_EARN) and stock return volatility (RET_VOL) to proxy for uncertainty and the difficulty in predicting earnings (Waymire 1985, Healy and Palepu 2001);

[9] Albeit the magnitude of earnings news can not be measured precisely one could obtain a precise measure of the sign of the news conveyed by the forecast for most of these forecast, but not all. Doing these and including those open-ended management forecats for which we can obtain a precise measure of the sign of the news do not affect our results.

litigation risks (*LIT*) because firms in high litigation industries are more likely to issue guidance to avoid potential litigation caused by withholding information (Skinner 1994, 1997, Rogers and Stocken 2005). We also control for bid-ask spread (*BID_ASK*) as a proxy for information asymmetry, a positive association is expected.

We collect management forecast data from I/B/E/S Guidance, financial data from Compustat, securities data from CRSP, analyst coverage data from I/B/E/S and institutional ownership information from Thomson Reuters 13F.[10] Table 1 presents descriptive statistics of the sample distribution. Panel A shows that firm-quarter observations are evenly distributed across years and conservatism ranks. Panel B reports the distribution of firms and quarterly EPS management forecasts by year. Around 35% of our sample firms issue at least one forecast during the period, of which 35.6% are good news and 32.7% are bad news. Table 2 presents summary statistics of the main variables used int he different tests.

After imposing all data requirements for the estimation of model (3), our final sample consists 147,698 firm-quarter observations over the period 2001-2017, pertaining 5,309 US publicly-listed firms of which 1,863 issue a management earnings forecast in at least one quarter. Starting our sample period in 2001 mitigates concerns related with the potential effects of Reg. FD in our results. We estimate equation (3) using OLS, including firm and year-quarter fixed effects.[11] Continuous variables are winsorized at the 1% and 99% of their distributions to mitigate concerns regarding outliers.

Table 3 reports the results for the estimation of model (3).[12] The coefficient on *CO_RANK* for good news forecasts (column 1) is significantly positive, while for bad news forecasts (column 2) is negative but not statistically significatn. These results are consistent with P1 for good news management forecasts (i.e., there is a positive association between conditional conservatism and

[10]Because I/B/E/S provides analyst and management forecasts based in their own version of earnings (i.e. street earnings) we also use I/B/E/S actual earnings rather than Compustat actual earnings to avoid introducing measurement error in guidance news.

[11]We obtain qualitatively similar results in sign and statistical significance using a probit model to estimate equation (3).

[12]In Table 2 the dependent variables were mutiplied by 100, so the coefficients on *CO_RANK* is interpreted as percentages.

good news voluntary disclosure), but not for bad news management forecasts.

In terms of economic magnitude, other things equal, moving from the bottom to the top decile of conditional conservatism implies an increase in the probability of issuing good news forecasts of 1.02% (column 1). The probability of issuing a good news earnings forecasts in a given quarter for our sample equals 4.99%, which means that

firms in the top decile of conditional conservatism are 20.44% (1.02/4.99) more likely to issue good news than firms in the bottom decile. Regarding P2, Table 3 column 3, shows that firms in the top decile of conditional conservatism are 10.16% (0.78/7.67) more likely to issue informative forecasts (i.e., lead analyst expectations closer to actual earnings) than firms in the bottom decile. Overall, this test provides evidence consistent with conditional conservatism enabling truthful good news disclosure.

Regarding control variables, estimated coefficients are mostly in line with results from prior literature Hirst et al. (2008). Overall, the coefficient on *SIZE* is positive, indicating that larger firms issue more earnings guidance; the coefficient on BTM is positive for good news and negative for bad news, indicating that growth opportunities are negatively (positively) associated with good (bad) news disclosure; firms with higher *ROA* are less (more) likely to issue good (bad) news forecasts; the coefficient on $ANALAYST$ is positive and significant consistent with an increased demand for forward-looking disclosure in firms with more analyst following; the coefficient on $INST$ is positive and significant as expected, but only for bad news forecasts; consistent with *DIS* and RET_VOL being surrogates for the difficulty of predicting earnings we observe negative coefficients as predicted by prior literature; finally, the coefficient on BID_ASK is positive, consistent with firms issuing more earnings guidance when information asymmetries are higher.

3.4. Serial Correlation in Consecutive Management Forecasts

For testing our third prediction (P3) we estimate the next model:

$$\begin{aligned} MFE_t =& \beta_0 + \beta_1 MFE_{t-4} + \beta_2 CO\_RANK_{t-4} + \beta_3 MFE_{t-4} \times CO\_RANK_{t-4} \\ &+ \beta_5 HORIZON_{t-4} + \beta_7 MFE_{t-4} \times HORIZON_{t-4} \\ &+ \beta_6 WIDTH_{t-4} + \beta_7 MFE_{t-4} \times WIDTH_{t-4} \\ &+ \beta_8 PAST\_ACC_{t-4} + \beta_9 MFE_{t-4} \times PAST\_ACC_{t-4} + \varepsilon_t \end{aligned} \tag{4}$$

Where MFE_t is management earnings forecast error, defined as the difference between quarter t management earnings forecast and actual earnings per share, scaled by the absolute value of actual earnings per share; MFE_{t-4} is management earnings forecast error for the same fiscal quarter in the previous year; and CO_RANK is our measure of conditional conservatism as previously defined.

To estimate equation (4) we use ordinary least squares regression with robust standard errors clustered at the firm level. We also include firm- and quarter- fixed-effects to control for average intertemporal and firm-industry differences in the management forecast errors. Finally, to mitigate the influence of outliers we drop the top and bottom one percentiles of MFE_t and MFE_{t-4}. Our variable of interest is the interatcion between same quarter prior year MFE and our measure of conditional conservtism ($MFE_{t-4} \times CO\_RANK_{t-4}$). If, as predicted, managers of more conditional conservative firms incorporate the information in prior forecast errors into current earnigns forecasts to a greater extent relative to less conditional conservative firms, then consecutive same quarter forecasts will be less positively correlated (i.e., $\beta_3 < 0$).

We include controls for management forecasts attributes that potentially affect the association in consecutive MFE (and its interactions with MFE_{t-4}). These attributes include (1) forecasting horizon ($HORIZON$), defined as the decile ranking of the number of calendar days from the management forecast date to the earnings announcement date of quarter t (Xu 2009); (2) precision ($WIDTH$) is the absolute value of the difference between the upper end and the lower end of range forecasts scaled by the actual earnings per share in quarter t, set to zero for point forecasts (Ba-

ginski et al. 1993); and (3) prior forecast accuracy (*PAST_ACC*) is the mean of the accuracy of all previous quarterly earnings management forecasts. Where accuracy is measured as the absolute value of actual earnings minus the management forecast, scaled by the stock price two days before the forecast announcement date times minus one (Ng et al. 2013, Hutton and Stocken 2021).

To the extent that management earnings forecasts news is correlated with MFE, and with the decision to issue guidance (Kothari et al. 2009), the results from this analysis may be subject to selection bias (Gong et al. 2011). To mitigate this concern we estimate model (4) using two samples were firms seem to precommit to the decision of issuing management forecasts and therefore managerial discretion is less likely to affect the results: (1) we include in the sample quarterly management forecasts over two or more consecutive years for those firms that issue guidance for at least 10 years within our sample period; and (2) following Gong et al. (2011) we include in the sample quarterly management forecasts consecutive years for those firms that never stoped providing forecast during our sample period and issue at least 6 consecutive forecasts, excluding those that provided all bad news or all good news.

This test requires the availability of quarterly management forecasts over two or more consecutive years. As in the estimation of model (3) we include in the analysis (i) the last quarterly forecast issued within a window of (-90, 0) days, where day 0 is the fiscal quarter-end date; (ii) exclude forecasts made after fiscal quarter-end because this are more likely earnings pre-announcements; and (iii) include only point and range forcasts because our definition of MFE does not properly capture forecast errors for other type of forecasts (e.g., open-ended forecasts).

Table 4 present the resulst of estimating equation (4), in line with P3 we find that $\beta_3 < 0$ and statically significant at the 1% (5%) level for the full sample (pre-commitment samples). To have an idea regarding the economic significance of this results, consider an hypothetical firm with a stock price of $20 and the results from Table 4 column 1. The mean MFE in the prior quarter for the sample is -2.26% of the share price or -$0.452. An association of 0.323 in the consecutive MFE implies a predictable error of approximately -$0.145 for firms in the bottom decile of *CO_RANK*. While for firms in the top decile of *CO_RANK* the implied predictable error is -$0.0059 ($20.00

× -2.26% × 0.0131). In this example, moving from the bottom to the top decile of conditional conservatism would signify a reduction in the implied predictable error of 95.5%, or to put it differently the implied predictable error represent a 0.725% (0.0295%) of the stock price. These results support the prediction that managers of more conservative firms incorporate the information in their prior forecast errors to a greater extent relative to less conservative firms.

3.5. Market Reaction to Management Earnings Forecasts

To test our fouth (P4) and fifth (P5) predictions we estimate the following model:

$$\begin{aligned} CAR_{[-t,+t]} =& \beta_0 + \beta_1 NEWS_t + \beta_2 CO\_RANK_{t-4} + \beta_3 NEWS_t + \times CO\_RANK_{t-4} \\ &+ \sum \gamma_k Credibility_{k,t-4} + \sum \delta_k NEWS_t \times Credibility_{k,t-4} \\ &+ \sum \theta_j Controls_{j,t-4} + \varepsilon_t \end{aligned} \tag{5}$$

Where, $CAR_{[-t,+t]}$, is the cumulative abnormal return over different time windows around management forecasts announcement (day 0), calculated using the 4-factors model. To capture the short-term market reaction to management forecasts we measure cumulative abnormal return over the [-1,+1] window ($CAR_{[-1,+1]}$), while for capturing the potential subsequent correction to the initial reaction we measure cumulative abnormal return over alternative windows (i.e., [+2,+6], [+2,+11], [+2,+16], [+2,+25]). $NEWS_t$ is management forecast news, defined as the difference between management forecasts (midpoint for range forecasts) and the last analysts' mean consensus forecast prior to the management forecast, scaled by the stock price two days before the management forecast announcement. CO_RANK_{t-4} is our measure of conditional conservatism as previosuly defined.

The extent to which the markets react to management earnigns forecasts is a function of both the news embedded in the forecast and its credibility (Jennings 1987, Mercer 2004, Ng et al. 2013). Then, our variable of interest is the interatcion between $NEWS_t + \times CO\_RANK_{t-4}$ (i.e., the increased credibility that can be attributed to conditional conservatism). If, as predicted by P4, conditional conservatism enhances the credibility of management earnings forecast we expect

$\beta_3 > 0$ when the dependent variable in equation (5) is $CAR_{[-1,+1]}$. According to P5 we would expect a less negative relationship between the initial reaction and the subsequent post-guidance drift.

As our focus is to empirically test the disciplining role of conditional conservatism over voluntary disclosure we control for other factors that are related to the credibility of management earnings forecasts. Following Ng et al. (2013) model (5) incorporate *Credibility* proxies and their interactions with $NEWS_t$. *Credibility* include: (1) *Past_Accuracy* is the mean of the accuracy of all previous quarterly earnings management forecasts. Where accuracy is measured as the absolute value of actual earnings minus the management forecast, scaled by the stock price two days before the forecast announcement date times minus one (Williams 1996, Hirst et al. 1999, Hutton and Stocken 2021); (2) LIT is an indicator variable equal to one if the firm belongs to a high litigation industry (SIC codes: 2833-2836; 3570-3577; 3600-3674; 5200-5961; 7370-7374; 8731-8734) (Rogers and Stocken 2005); (3) HHI is the Herfindal-Hirschman Index, which captures market concentration and is measured as the sum of the squares of the market shares of the firms within the same industry; (4) RDQ is R&D intensity measured as R&D expenses scaled by lagged total assets; and (5) *Analyst_Agree* is an indicator variable equal to one if mean analyst consensus 5 days after management forecast is within one cent of the management earnings forecast for point forecasts, or is within the upper and lower bounds of the forecast for range forecasts, and zero otherwise.

To further control fo other factors that may affect may be associated with the market reaction to management forecasts *Controls* include: (1) *Prior_Return* is the firm's 4-factors model cumulative abnormal return between 15 days before and 2 days before the management forecast date; (2) AFE is anlayst forecast error measured as the mean analyst consensus estimate minus the value of actual earnings, scaled by the stock price two days before the management forecast announcement date; (3) DIS is the standard deviation of analyst forecast estimates in the mean consensus estimate; (4) $SIZE$ is the natural logarithm of sales; (5) LEV is the leverage ratio measured as total debt scaled by total assets; (6) BTM is the book to market ratio, book value of equity divided by market value

of equity; (7) *RET_VOL* is return volatility calculated as the standard deviation of daily returns over the last 250 trading days; and (8) *BID_ASK* is the average of daily bid-ask spread over the quarter.

In order to avoid the cofounding effect of market reaction to the earnings announcement (Anilowski et al. 2007, Rogers and Van Buskirk 2013, Ng et al. 2013), for this test our sample only includes non-bundled management earnings forecasts (i.e., we remove from the sample those forecasts issued whitin a 3-days window around the earnings announcement date).

Table 5 present the resulst of estimating equation (5). Contrary to P4, results in Table 5 column 1, show that β_3 is not statistically different from zero suggesting there is no stronger short-term market reaction to management forecasts issued by more conditionally conservative firms. However, the results in Table 5 columns 2 to 5, suggest that the market overreacts to management earnings forecasts issued by less conservative firms and subsequently corrects the overreaction.

To gauge an idea of the association between conditional conservatism and the market reaction to management earnigns forecasts consider a one standard deviation change in *NEWS* for our sample, 0.47%, according to the estimated coefficients in Table 5 column 1, this is associated with a $CAR_{[-1,+1]}$ equal to 3.35% (0.47*7.13). The initial market reaction to management earnings forecasts is the same for firms in the bottom and top decile of *CO_RANK*. However, if we conisder the post-guidance market reaction, $CAR_{[+2,+26]}$ (Table 5 column 5), there is a reversion of the initial stock market reaction equal to 2.90% (0.61%) for firms in the bottom (top) decile of *CO_RANK*. In the 25 days following the day after the managment earnings forecast there is a correction to the initial stock market reaction that is 4.77 times larger for least conservative firms compared to the most conservative firms. The overall reaction a one standard deviation of *NEWS* in the longer time window (i.e.,$CAR_{[-1,+26]}$) is equal to 0.45% for firms the bottom decile of *CO_RANK* compared to a 2.74% for firms in the top decile of *CO_RANK*.

3.5.1. Softer Disclosures

We test our last prediction (P6) by focusing on 'softer' voluntary disclosures. For the purpose of our analysis we think of the information provided by voluntary disclosures to be in a continnum

along which it can be classified as 'harder' or 'softer' depending on their characteristics (Liberti and Petersen 2019). On one hand, forecasts of earnings and/or other financial statements elements convey to the market a 'hard' number related to firm's fundamentals and performance that can be directly confirmed by future outcomes. On the other hand, non-financial disclosures convey 'soft' information that have no direct link with future earnings and may not be quantifiable, but facilitates market participants learning about firm's fundamentals. Therefore, 'soft' disclosures could help analayst and investors in forming their own expectations about firm's future earnings.

To understand how much new information associated with soft voluntary disclosure is incorporated in share prices relative to other sources, we follow Ball and Shivakumar (2008), and estimate a cross-sectional regressions of stocks' calendar-returns windows ($R_i(window)$) on the 3-days window returns centered around voluntary disclosure announcement date ($R_i(VD)$):

$$R_i(window) = \alpha + \beta * R_i(VD) + \varepsilon_i \tag{6}$$

The 'abnormal R^2' measure from Ball and Shivakumar (2008) captures how much new information voluntary disclosure conveys to the market and is calculated as the difference between the above regression adjusted R^2 and a benchmark R^2 that reflects normal price volatility under the assumption that daily returns are i.i.d. across time.[13]

By considering alternative calendar-returns windows, 'abnormal R^2' captures how markets respond to voluntary disclosures relative to all information sources over the same time period. We estimate model (6) separately for firms in the top/bottom 3 deciles of our conditional conservatism meaure, to determine whether the market incorporates the information conveyed by voluntary disclosure into stock prices over the calendar-return wiondow to a greater extent for conservative firms.

We calculate logarithmic calendar-window buy-and-hold returns ($R_i(window)$), for alternative windows. In the first window returns are buy-and-hold returns over days -11 to +11, relative to

[13] See Ball and Shivakumar (2008) for a discussion on the validity of this assumption.

the management forecast announcement date (day 0). Then, we consider buy-and-hold returns over days -21 to +21, and -31 to +31. These windows returns benchmark how markets respond to management forecasts relative to other information released before and after the forecast. In the last window, calendar-returns are buy-and-hold returns over days -1 to +61 relative day 0. This window allows for more time to correct any initial under or overreaction to the information conveyed by vountary disclosures. Voluntary disclosure announcement date ($R_i(VD)$) returns are buy-and-hold returns over days -1 to +1, relative to the announcement date (day 0). These are either the returns associated with management earnigns forecasts ($R_i(MF)$) or softer disclosures ($R_i(SD)$).

This research design is suitable to test the market reaction to 'soft' voluntary disclosures because it only requires information related to the announcement dates, and not quantities or expectations about the information disclosed (Ball and Shivakumar 2008). We obtain information on 'soft' voluntary disclosure from Capital IQ *Key Developments* database. Following Capital IQ's definitions, soft voluntary disclosure used for this test include a variety of corporate announcements disclosed by companies via press releases and news outlets related with: (1) Product announcements, e.g., launch of new poduct lines, change and/ot discontinuation of products, product related R&D; (2) Client announcements, e.g., securing new contracts, contract extensions/renewal, new clients orders, loss of clients; (3) Business expansions, e.g., joint ventures/partnerships, plant upgrades, new plant construction, new plants ready for operations, entering new markets, incorporating a subsidiary; (4) Strategic alliances, e.g., inititaion/termination of agreements, memorandum of understanding, letter of intenttion; (5) Business reorganizations, e.g., relocation plans, executive changes, consolidation of operations, restructuring/change in operations; and (6) Downsizing of business, e.g., lay-offs, closing plants. To avoid confounding effects and for comparability across the different tests, we consider only soft voluntary disclosures non-bundled with earnings announcements (Anilowski et al. 2007, Ball and Shivakumar 2008, Rogers and Van Buskirk 2013) and estimate model (6) for the same sample of firms used in model (5).

Table 6 presents the results of estimating model (6). To provide context for the results on 'soft'

voluntary disclosures, Table 6 panel A presnt the results for management earnigns forecasts. Considering the return window [-11,+11] relative to the announcement of the forecast (columns 1 and 2), management forecast issued by the most (least) conservative firms with 28.9% (23.6%) of the total information incorporated in share prices over the return window.[14] This suggests that management earnings forecasts issued by more conservative firms convey 1.22 times more information to the stock markets relative to forecasts from less conservative firms. If we extend the returns windows to [-21,+21] and [-31,+31] abnormal R^2 are still positive suggesting that management forecasts provide new information to the stock markets, but we do not observe any difference betwee firms with high/low CO_RANK. However, if we focus on the returns win [-1,+61], allowing to account for potential corrections to any initial under or overreaction to the information conveyed by management earnings forecasts, we find that earnings forecasts issued by more conservative firms convey 1.20 times more information to the stock markets relative to forecasts from less conservative firms. These results are in line with our prior results suggesting that conditional conservatism lends credibility to management earnings forecats.

Looking into the results for 'soft' voluntary disclosures, Table 6 panel B to G, we identify two main patterns. First, in almost every cases the abnormal R^2 is negative, there are a few specification in which we find a modest positive abnormal R^2 an in only four (out if 24) occasions is for firm the top deciles of CO_RANK, suggesting that the information conveyed by the 'soft' disclosures considered is not incorporated in the stock prices over the different returns windows considered. Second, in most of the cases the abnormal R^2 is smaller for firm the top relative to firms in the bottom deciles of CO_RANK. As expected (P6), when the disclosures cannot be precisley mapped to the financial statement numbers, we do not find any systematic and/or meaningful evidence regarding the confirmatory role of conditional conservatism.

[14] These results are comparable to Ball and Shivakumar (2008), that find abnormal R^2 values between 20% to 25% using a much larger sample of non-bundled forecasts from 1998 to 2006.

4. Summary and Conclusion

We empirically test the confirmatory role of connditional conservatism (Guay and Verrecchia 2007, LaFond and Watts 2008). Conservatism may attain this benefit because 1) it acts as a governance mechanism that reduces managerial incentives and ability to manipulate accounting earnings, and 2) it provides a benchmark for current performance that enables other sources of information to produce credible information.

We find that: (i) more conditionally conservative firms issue more good news and informative (*ex-post*) earnings forecasts; (ii) serial correlation in management forecast errors for consecutive earnings forecasts is significantly lower for more conservative firms; (iii) management forecasts issued by more conservative firms are associated with stronger market reactions; and (iv) we do not find evidence of stronger market reactions to 'soft' disclosures issued by more conservative firms.

Taken together these results are consistent with conditional conservatism acting as a mechanism that lends credibility *ex-ante* to voluntary disclosure by providing a 'hard' reporting benchmark that allows outsiders to better evaluate the truthfulness of management forecasts, when the disclosures can be direclty linked to the financial statement numbers.

We contribute to the conservatism literature by presenting empirical evidence on the benefits of conditional conservatism for firms information environment. We show that conditional conservatism is a mechanism by which managers can commit to truthfully disclose earnings forecasts. Second, we contribute to the debate on whether financial reporting and voluntary disclosure are complements or substitutes, by showing that conditional conservatism acts as a complement for timely voluntary disclosure of good news. By providing a 'hard' reporting benchmark, conditional conservatism enhances the information value of management earnings forecasts. Finally, our paper contributes to the literature on the determinants and characteristics of management forecasts by documenting that conditional conservatism increases the frequency and credibility of good news earnings forecasts.

Our evidence should be however interpreted considering the following caveats. First, we as-

sume conservatism as being a committment and predetermined for the current generation of managers, but we can not rule out endogeneity, therefore our results should be interpreted as associations. Second, despite the improvements in measuring conditional conservatism (Badia et al. 2021), potential measurement errors may still remain. Finally, our results may not generalize beyond the specific choices of our study. In particular, because we focus on management earnings forecasts (I/B/E/S guidance) and 'soft' disclosures in press realeases and news outlets (*Key Debelopments*), the results may not generalize to other sources of 'soft' information.

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TABLE 1
Sample Distribution

Panel A: Sample Distribution by Year and Conservatism Rank

Year	Conditional Conservatism Rank										Total
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	
2001	827	812	805	779	767	733	764	773	765	745	7,770
2002	822	812	784	763	738	766	777	797	816	821	7,896
2003	896	874	865	847	871	854	909	877	873	793	8,659
2004	879	876	872	916	884	895	908	904	882	940	8,956
2005	915	913	903	923	891	939	911	942	912	884	9,133
2006	923	910	898	857	860	882	909	875	897	918	8,929
2007	930	905	852	857	853	869	861	869	846	858	8,700
2008	888	836	839	834	837	844	876	842	856	814	8,466
2009	879	875	844	842	833	813	832	847	822	837	8,424
2010	907	893	868	882	873	855	864	832	842	827	8,643
2011	898	907	900	900	878	874	862	862	873	855	8,809
2012	919	915	898	891	888	884	882	863	881	872	8,893
2013	928	920	901	898	932	907	891	858	853	836	8,924
2014	914	892	920	904	912	887	886	867	873	866	8,921
2015	897	908	910	900	884	919	904	896	873	900	8,991
2016	899	900	864	849	870	868	864	900	898	907	8,819
2017	898	891	849	851	848	880	863	876	894	915	8,765
Total	**15,219**	**15,039**	**14,772**	**14,693**	**14,619**	**14,669**	**14,763**	**14,680**	**14,656**	**14,588**	**147,698**

Panel B: Distribution of Firms and Management Forecast by Year

Year	Firms	Guiders	% Guiders	# of Forecasts	% GN	%BN	% INFO
2001	2,248	610	27.14 %	1,035	29.28 %	30.43 %	63.38 %
2002	2,293	618	26.95 %	1,232	27.68 %	28.90 %	57.39 %
2003	2,439	628	25.75 %	1,399	33.45 %	29.38 %	47.03 %
2004	2,518	669	26.57 %	1,552	36.60 %	28.54 %	58.57 %
2005	2,552	660	25.86 %	1,442	36.48 %	30.79 %	63.11 %
2006	2,493	611	24.51 %	1,344	37.13 %	32.44 %	67.86 %
2007	2,462	531	21.57 %	1,370	34.38 %	35.77 %	51.17 %
2008	2,375	469	19.75 %	1,366	33.02 %	37.34 %	49.49 %
2009	2,326	413	17.76 %	1,216	44.49 %	28.29 %	46.38 %
2010	2,398	422	17.60 %	1,309	45.61 %	26.13 %	52.64 %
2011	2,431	448	18.43 %	1,327	37.45 %	33.23 %	47.25 %
2012	2,432	430	17.68 %	1,293	32.79 %	40.06 %	48.65 %
2013	2,448	426	17.40 %	1,269	34.99 %	40.82 %	46.41 %
2014	2,442	409	16.75 %	1,240	34.92 %	40.08 %	46.45 %
2015	2,485	403	16.22 %	1,233	37.15 %	39.42 %	43.80 %
2016	2,454	392	15.97 %	1,211	40.71 %	36.17 %	48.31 %
2017	2,401	363	15.12 %	1,085	42.76 %	31.98 %	50.51 %
Total	**5,309**	**1,863**	**35.09** %	**21923**	**35.65 %**	**32.78 %**	**52.35 %**

TABLE 2
Summary Statistics

	Mean	Median	Std. Dev.	1%	99%
Final Sample					
GOOD_NEWS	4.9855	0.0000	21.7647	0.0000	100.0000
BAD_NEWS	4.5632	0.0000	20.8687	0.0000	100.0000
INFO	7.6675	0.0000	26.6076	0.0000	100.0000
CO_RANK	5.4712	5.0000	2.8796	1.0000	10.0000
LEV	0.1919	0.1574	0.1782	0.0000	0.7186
SIZE	4.8810	4.8427	2.0268	0.2601	9.5042
BTM	0.6418	0.5325	0.4819	0.0478	2.5603
ROA	0.0057	0.0076	0.0351	-0.1517	0.0790
ANALYST	1.5753	1.6094	0.9769	0.0000	3.3322
INST	0.4903	0.5253	0.3440	0.0000	1.0883
S_EARN	440.9991	496.1401	118.8582	176.0605	596.6298
DIS	0.0457	0.0100	0.0939	0.0000	0.5000
RET_VOL	0.0274	0.0239	0.0144	0.0091	0.0770
BID_ASK	0.8030	0.2120	1.4413	0.0150	6.9563
Serial Correlation Sample					
MFE	-0.0117	-0.0500	0.7049	-2.0000	3.1250
MFE_{t-1}	-0.0227	-0.0522	0.5591	-1.5000	2.5000
CO_RANK	4.4895	4.0000	2.6005	1.0000	10.0000
HORIZON	5.8164	6.0000	2.6999	1.0000	10.0000
WIDTH	0.2136	0.0893	0.7413	0.0000	2.1667
PAST_ACC	-0.0040	-0.0025	0.0046	-0.0224	-0.0002
LEV	0.1638	0.1472	0.1579	0.0000	0.6328
SIZE	5.7730	5.7285	1.5215	2.5993	9.1514
BTM	0.4699	0.3982	0.3089	0.0622	1.4841
ROA	0.0128	0.0146	0.0302	-0.0980	0.0729

– continue on next page –

TABLE 2 – *continued* –

	Mean	Median	Std. Dev.	1%	99%
Market Reaction Sample					
$CAR_{[-1,+1]}$	-0.0005	0.0009	0.0847	-0.2447	0.2141
$CAR_{[+2,+6]}$	0.0017	0.0001	0.0458	-0.1131	0.1307
$CAR_{[+2,+11]}$	0.0021	0.0001	0.0633	-0.1607	0.1861
$CAR_{[+2,+16]}$	0.0035	0.0008	0.0777	-0.1905	0.2326
$CAR_{[+2,+26]}$	0.0052	0.0031	0.1030	-0.2587	0.2848
CO_RANK	4.7738	5.0000	2.6022	1.0000	10.0000
NEWS	-0.0004	0.0000	0.0047	-0.0183	0.0148
PAST_ACC	-0.0058	-0.0039	0.0061	-0.0315	-0.0001
LIT	0.4646	0.0000	0.4988	0.0000	1.0000
HHI	0.2854	0.2291	0.1909	0.0706	0.9618
Analyst_Agree	0.1618	0.0000	0.3683	0.0000	1.0000
RDQ	33.8234	14.8823	54.6606	0.5032	274.0609
AFE	-0.0004	-0.0005	0.0055	-0.0160	0.0158
DIS	0.0421	0.0240	0.0658	0.0000	0.2884
SIZE	5.7226	5.7216	1.5192	2.4754	9.0609
LEV	0.1518	0.1444	0.1389	0.0000	0.5162
BTM	0.4974	0.4228	0.3022	0.0930	1.4808
RET_VOL	0.0261	0.0237	0.0113	0.0099	0.0629
BID_ASK	0.2407	0.1124	0.3907	0.0147	1.9710

TABLE 3
Relation Between Conditional Conservatism and Management Earnings Forecasts

	(1)	(2)	(3)
Dependent Variable =	$GOOD\_NEWS_t$	BAD_NEWS_t	$INFO_t$
CO_RANK_{t-4}	0.102***	-0.0001	0.078**
	(0.031)	(0.031)	(0.036)
LEV_{t-4}	0.331	-0.701	-1.292
	(1.160)	(1.036)	(1.241)
$SIZE_{t-4}$	0.668***	1.917***	0.954***
	(0.204)	(0.221)	(0.239)
BTM_{t-4}	0.292	-0.736***	-0.036
	(0.210)	(0.201)	(0.249)
ROA_{t-4}	-3.817*	5.853**	4.878*
	(2.243)	(2.361)	(2.698)
$ANALYST_{t-4}$	-0.480**	0.809***	0.728***
	(0.239)	(0.212)	(0.255)
$INST_{t-4}$	-0.666	1.483*	0.337
	(0.859)	(0.900)	(0.929)
DIS_{t-4}	-3.038***	-2.163***	-4.073***
	(0.717)	(0.660)	(0.872)
RET_VOL_{t-4}	-69.478***	-38.805***	-38.515***
	(9.578)	(7.728)	(10.497)
BID_ASK_{t-4}	0.190***	0.333***	-0.006
	(0.055)	(0.053)	(0.067)
Adj_R^2	0.249	0.182	0.291

Notes: This table reports the regression results on the relation between conditional conservatism and the issuance of quarterly management earnings forecasts. The estimated model is:

$$Y_t = \beta_0 + \beta_1 CO\_RANK_{t-4} + \sum \gamma_k Controls_{k,t-4} + \varepsilon_t$$

Where Y_t is either $GOOD\_NEWS_t$, BAD_NEWS_t, or $INFO_t$. $GOOD\_NEWS_t$ (BAD_NEWS_t) is an indicator variable set to one if the difference between management forecasts and the last analysts' mean consensus forecast is positive (negative) and greater than \$0.01. $INFO_t$ is an indicator variable set to one if the management forecast guided analyst expectations closer to the actual earnings. CO_RANK_{t-4} is our measure of conservatism calculated as the annual decile of the three-year average of Khan and Watts (2009) measure of incremental timeliness to bad news *C_SCORE* following Badia et al. (2021) approach. The sample consist of 147,698 firm-quarter observations. The sample period is from 2001 to 2017. The intercept, quarter and firm fixed-effects are included in the regressions; for parsimony the coefficients on these variables are not tabulated. Robust standard errors clustered at the firm level are in parentheses. ***, **, * indicate significance at the 1%, 5%, and 10% levels.

TABLE 4
Relation Between Current and Prior Year Same Quarter Management Earnings Forecast Errors

	(1)	(2)	(3)
Dependent Variable =	MFE_t	MFE_t	MFE_t
MFE_{t-4}	0.323***	0.382***	0.383**
	(0.091)	(0.103)	(0.184)
CO_RANK_{t-4}	-0.002	0.001	0.004
	(0.004)	(0.004)	(0.006)
$MFE_{t-4} \times CO\_RANK_{t-4}$	-0.029***	-0.032**	-0.041**
	(0.010)	(0.013)	(0.020)
Observations	15,290	9,876	3,961
Adj_R^2	0.187	0.208	0.247

Notes: This table reports the regression results on the relation between current management earnings forecast errors on same quarter previous year management earnings forecast errors. The estimated model is:

$$\begin{aligned} MFE_t =& \beta_0 + \beta_1 MFE_{t-4} + \beta_2 CO\_RANK_{t-4} + \beta_3 MFE_{t-4} \times CO\_RANK_{t-4} \\ &+ \beta_5 HORIZON_{t-4} + \beta_7 MFE_{t-4} \times HORIZON_{t-4} \\ &+ \beta_6 WIDTH_{t-4} + \beta_7 MFE_{t-4} \times WIDTH_{t-4} \\ &+ \beta_8 PAST\_ACC_{t-4} + \beta_9 MFE_{t-4} \times PAST\_ACC_{t-4} + \varepsilon_t \end{aligned}$$

The sample period covers fiscal years from 2001 to 2017. Column (1) present the results for the full sample consisting of 15,290 management forecast of firms that provide quarterly forecasts for consecutive years. Column (2) present the results for a sample of firms that issued guidance for at least 10 years within our sample period. Column (3) present the results for a those forecasts of firms that never stoped providing forecast during our sample period and have at least 5 consecutive forecasts (excluding those that have all 5 consecutive good or bad new forecasts). We define management earnings forecast error (MFE_t) as the management forecast of quarter t earnings per share minus quarter t actual earnings per share scaled by the actual earnings per share in quarter t. CO_RANK_{t-4} is our measure of conservatism calculated as the annual decile of the three-year average of Khan and Watts (2009) measure of incremental timeliness to bad news *C_SCORE* following Badia et al. (2021). *HORIZON* is the decile ranking of the number of calendar days from the management forecast date to the earnings announcement date of quarter t. *WIDTH* is the absolute value of the difference between the upper end and the lower end of range forecasts scaled by the actual earnings per share in quarter t. For point porecasts *WIDTH* is set equal to zero. *PAST_ACC* is the mean of the accuracy of all previous quarterly earnings management forecasts. Where accuracy is measured as the absolute value of actual earnings minus the management forecast, scaled by the stock price two days before the forecast announcement date times minus one. The intercept, quarter and firm fixed-effects, and controls variables *HORIZON*, *WIDTH*, *PAST_ACC*, and its interactions with MFE_{t-4} are included in the regressions; for parsimony the coefficients on these variables are not tabulated. Robust standard errors clustered at the firm level are in parentheses. ***, **, * indicate significance at the 1%, 5%, and 10% levels.

TABLE 5
Market Reaction to Management Earnings Forecasts

Dependent Variable = *CAR*	(1)	(2)	(3)	(4)	(5)
	Cumulative Abnormal Returns				
	[-1,+1]	[+2,+6]	[+2,+11]	[+2,+16]	[+2,+26]
$NEWS_t$	7.130***	-1.042	-2.362**	-3.964***	-6.173***
	(1.595)	(0.627)	(0.913)	(1.356)	(1.788)
CO_RANK_t	0.001	-0.0001	-0.001**	-0.001**	-0.001
	(0.001)	(0.0002)	(0.000)	(0.001)	(0.001)
$NEWS_t \times CO\_RANK_t$	-0.230	0.134	0.205*	0.306**	0.488**
	(0.201)	(0.089)	(0.106)	(0.142)	(0.185)
Credibility			Included		
$NEWS_t \times Credibility$			Included		
Controls			Included		
Observations	4,098	4,098	4,098	4,098	4,098
Adj_R^2	0.160	0.0169	0.0116	0.0147	0.0166

Notes: This table reports the regression results on the relation between cumulative abnormal returns over different windows aruound management earnings forecasts announcement dates and management forecasts news. The estimated model is:

$$CAR = \beta_0 + \beta_1 NEWS_t + \beta_2 CO\_RANK_{t-4} + \beta_3 NEWS_t + \times CO\_RANK_{t-4} + \sum \gamma_k Credibility_{k,t-4} + \sum \delta_k NEWS_t \times Credibility_{k,t-4} + \sum \theta_j Controls_{j,t-4} + \varepsilon_t$$

Where *CAR* is the cumulative abnornal return over different time windows around management forecasts announcement (day 0), calculated using the 4-factors model. $NEWS_t$ is management forecast news, defined as the difference between management forecasts and the last analysts' mean consensus forecast prior to the management forecast, scaled by the stock price two days before the management forecast announcement. CO_RANK_{t-4} is our measure of conditional conservatism as defined before. *Credibility* include five credibility proxies following Ng et al. (2013). *Past_Accuracy* is the mean of the accuracy of all previous quarterly earnings management forecasts. Where accuracy is measured as the absolute value of actual earnings minus the management forecast, scaled by the stock price two days before the forecast announcement date times minus one. *LIT* is an indicator variable equal to one if the firm belongs to a high litigation industry (SIC codes: 2833-2836; 3570-3577; 3600-3674; 5200-5961; 7370-7374; 8731-8734). *HHI* is the Herfindal-Hirschman Index, which captures market concentration and is measured as the sum of the squares of the market shares of the firms within the same industry. *RDQ* is R&D intensity measured as R&D expenses scaled by lagged total assets. *Analyst_Agree* is an indicator variable equal to one if mean analyst consensus 5 days after management forecast is within one cent of the management earnings forecast for point forecasts, or is within the upper and lower bounds of the forecast for range forecasts, and zero otherwise. *Controls* include additional variables that may be associated with the market reaction to management forecasts. *Prior_Return* is the firm's 4-factors model cumulative abnormal return between 15 days before and 2 days before the management forecast date. *AFE* is anlayst forecast error measured as the mean analyst consensus estimate minus the value of actual earnings, scaled by the stock price two days before the management forecast announcement date. *DIS* is the standard deviation of analyst forecast estimates in the mean consensus estimate. *SIZE* is the natural logarithm of sales. *LEV* is the leverage ratio measured as total debt scaled by total assets. *BTM* is the book to market ratio, book value of equity divided by market value of equity. *RET_VOL* is return volatility calculated as the standard deviation of daily returns over the last 250 trading days. *BID_ASK* is the average of daily bid-ask spread over the quarter. The sample period is from 2001 to 2017. The intercept, *Credibility* variables and its interaction with *NEWS*, *Controls* variables, and quarter fixed-effects are included in the regressions; for parsimony the coefficients on these variables are not tabulated. Robust standard errors clustered at the quarter-firm level are in parentheses. ***, **, * indicate significance at the 1%, 5%, and 10% levels.

TABLE 6
Cross-sectional regressions of buy-and-hold returns on returns in the voluntary disclosure window

Dependent Variable = Buy-Hold Calendar Returns								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Alternative Return Windows Around Soft Disclosures							
	[-11,+11]		[-21,+21]		[-31,+31]		[-1,+61]	
CO_RANK =	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom
Panel A: Management Earnings Forecasts								
MF Returns	0.916***	0.934***	0.833***	0.942***	0.748***	0.921***	0.827***	0.847***
	(0.040)	(0.032)	(0.057)	(0.044)	(0.068)	(0.055)	(0.076)	(0.058)
Constant	-0.080**	-0.060*	-0.159***	-0.047	-0.236***	-0.066	-0.160**	-0.138**
	(0.041)	(0.032)	(0.058)	(0.045)	(0.069)	(0.055)	(0.077)	(0.058)
Observations	725	1,527	722	1,532	717	1,528	719	1,527
Abnormal R^2	0.289	0.236	0.157	0.157	0.095	0.108	0.093	0.077
Panel B: Product Announcements								
SD Returns	0.616***	0.960***	0.696***	0.966***	0.529***	0.935***	0.773***	1.119***
	(0.087)	(0.065)	(0.124)	(0.095)	(0.152)	(0.117)	(0.148)	(0.118)
Constant	-0.372***	-0.036	-0.284**	-0.025	-0.435***	-0.052	-0.189	0.127
	(0.087)	(0.065)	(0.124)	(0.094)	(0.152)	(0.117)	(0.148)	(0.118)
Observations	1,434	2,325	1,431	2,322	1,425	2,322	1,413	2,318
Abnormal R^2	-0.096	-0.045	-0.048	-0.027	-0.040	-0.021	-0.029	-0.011
Panel C: Client Announcements								
SD Returns	0.904***	0.881***	0.838***	0.978***	0.955***	1.003***	0.841***	0.970***
	(0.078)	(0.069)	(0.111)	(0.099)	(0.137)	(0.126)	(0.131)	(0.114)
Constant	-0.083	-0.118*	-0.136	-0.017	-0.006	0.015	-0.125	-0.017
	(0.077)	(0.069)	(0.111)	(0.099)	(0.137)	(0.126)	(0.131)	(0.114)
Observations	1,693	2,201	1,688	2,202	1,689	2,200	1,678	2,194
Abnormal R^2	-0.056	-0.061	-0.037	-0.028	-0.020	-0.020	-0.024	-0.016
Panel D: Business Expansions								
SD Returns	0.835***	1.079***	0.849***	0.885***	0.778***	0.963***	1.096***	0.734***
	(0.129)	(0.095)	(0.189)	(0.135)	(0.258)	(0.170)	(0.249)	(0.170)
Constant	-0.160	0.085	-0.130	-0.104	-0.198	-0.029	0.116	-0.256
	(0.129)	(0.095)	(0.188)	(0.134)	(0.258)	(0.170)	(0.249)	(0.169)
Observations	415	920	413	920	415	921	414	921
Abnormal R^2	-0.038	-0.007	-0.023	-0.025	-0.027	-0.014	-0.003	-0.028

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TABLE 6 – *continued* –

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Alternative Return Windows Around Soft Disclosures							
	[-11,+11]		[-21,+21]		[-31,+31]		[-1,+61]	
CO_RANK =	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom
Panel E: Strategic Alliances								
SD Returns	0.870***	0.743***	1.064***	0.770***	1.438***	0.742***	1.052***	0.970***
	(0.183)	(0.137)	(0.253)	(0.204)	(0.298)	(0.261)	(0.292)	(0.247)
Constant	-0.111	-0.249*	0.096	-0.220	0.483	-0.238	0.101	-0.001
	(0.183)	(0.137)	(0.252)	(0.203)	(0.298)	(0.260)	(0.291)	(0.246)
Observations	253	479	253	479	251	478	253	478
Abnormal R^2	-0.048	-0.072	-0.004	-0.041	0.037	-0.031	0.001	-0.017
Panel F: Business Reorganizations								
SD Returns	0.715	0.874***	-0.549	0.585	-0.753	0.833	-0.559	1.503***
	(0.433)	(0.286)	(0.584)	(0.389)	(0.665)	(0.647)	(0.817)	(0.547)
Constant	-0.235	-0.113	-1.495**	-0.364	-1.689**	-0.127	-1.488*	0.520
	(0.427)	(0.287)	(0.576)	(0.389)	(0.656)	(0.647)	(0.807)	(0.547)
Observations	28	40	28	40	28	40	28	40
Abnormal R^2	-0.035	0.067	-0.037	-0.014	-0.001	-0.006	-0.030	0.118
Panel G: Downsizing								
SD Returns	0.758***	1.489***	1.012***	1.263***	0.960***	1.276***	1.319***	0.935***
	(0.196)	(0.155)	(0.248)	(0.209)	(0.302)	(0.286)	(0.314)	(0.268)
Constant	-0.236	0.476***	0.030	0.258	-0.003	0.269	0.360	-0.056
	(0.197)	(0.156)	(0.249)	(0.210)	(0.303)	(0.287)	(0.315)	(0.269)
Observations	209	247	209	246	207	246	207	245
Abnormal R^2	-0.062	0.143	0.004	0.060	-0.001	0.027	0.031	0.000

Notes: This table reports the regression results on the relation between buy-and-hold abnormal returns over different windows around voluntary disclosures announcement dates and disclosures returns. The estimated model is: $R_i(window) = \alpha + \beta * R_i(VD) + \varepsilon_i$. We include only those voluntary disclosures in our sample that are not bundled with earnings announcements for the same sample of firms used to estimate model (5), for which we have sufficent data from CRSP to calcualte buy-and-hold returns. $R_i(window)$ are logarithminc buy-and-hold returns for alternative windows (i.e., {-11,+11}, {-21,+21},{-31,+31},{-1,+61}) around the voluntary disclosure announcement date [Day 0]. Voluntary disclosure returns are logarithmic buy-and-hold returns for the three-day forecast window. Top (bottom) sample includes forecasts issued by firms in the top (bottom) 3 deciles of *CO_RANK*. Abnormal R2 is the regression R2 value minus its expectation assuming i.i.d. daily returns over the return window. ***, **, * indicate significance at the 1%, 5%, and 10% levels. Standard errors in parentheses.