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Changes in earnings announcement tone and insider sales

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ABSTRACT

The evidence from prior literature suggests that insider trading is related to firms' reported financial results and disclosure choices. I contribute to the literature by examining the association between narrative disclosure in earnings announcements and insider trading. Specifically, I hypothesize and find a positive association between changes in the optimistic tone of earnings announcements and CEOs' subsequent equity sales. In addition, I hypothesize and find that this relation is mitigated by the Sarbanes–Oxley Act and litigation risk. CEOs' financial gain from selling equity after more optimistic earnings announcements is small relative to their total compensation.

1. Introduction

The prior literature finds that insider trading is related to financial reporting and disclosure. Specifically, insider trading is associated with reporting a loss (Aier, 2013), a break in an earnings growth string (Ke, Huddart, & Petroni, 2003), just meeting or beating analysts' forecasts (Cheng & Warfield, 2005), good news in a 10 K or 10Q filing (Huddart, Ke, & Shi, 2007), and favorable management forecasts (Noe, 1999). Cheng and Lo (2006) find that increased insider trading is associated with an increase in management forecasts, and Rogers (2008) notes that managers increase disclosure quality before selling equity. Thus, while insider trading is associated with disclosure quality and with the numerical results reported in earnings announcements, it is unclear whether insider trading is related to specific attributes of the narrative portion of earnings announcements. Thus, I contribute to the literature by investigating whether CEO equity sales are associated with changes in the optimistic tone of earnings announcements.

The change in (or unexpected) optimistic tone of earnings announcements is associated with abnormal returns around the announcement date, which indicates the market (at least partially) prices disclosure tone (Davis, Piger, & Sedor, 2012; Demers & Vega, 2011; Henry, 2008; Henry & Leone, 2010; Huang, Teoh, & Zhang, 2014).[2] Demers and Vega (2011) and Feldman, Govinharaj, Livnat, and Segal (2010) find that disclosure tone is also related to longer-window (i.e., one quarter) abnormal returns, which suggests that tone is impounded into price over time. Thus, the literature indicates that the tone of earnings announcements provides information to market participants and that this information is impounded into stock price.

In this way, an unexpected increase in optimistic tone (e.g., lauding firm performance) increases stock price, which increases the proceeds from any subsequent equity sales. Therefore, I hypothesize a positive association between changes in optimistic tone in earnings announcements and CEOs' subsequent equity sales. I focus on insider sales (and not insider purchases) because the clear economic incentives to sell equity after more-optimistic earnings announcements provide a more powerful setting to test the relationship between earning announcement tone and CEO equity sales.

There are two alternative explanations for a positive association between changes in optimistic tone of earnings announcements and CEO equity sales. First, CEOs could increase optimistic tone to communicate positive information about their firms to market participants. CEOs could then decide to sell equity after observing a stock price increase. In other words, CEOs could decide to sell equity after a legitimately optimistic earnings announcement. This explanation is consistent with the literature that finds that CEOs benefit from timing sales after positive disclosures (e.g., Noe, 1999). Second, CEOs could have decided (or pre-contracted) before the earnings announcement to sell equity after the earnings announcement. With knowledge of a forthcoming sale, CEOs could increase the optimistic tone of their earnings announcement in an effort to increase the proceeds from their sale. Under this alternative, the increase in optimistic tone may not correspond to expectations of future firm performance, and the CEO could be trying to mislead the market, at least temporarily. This explanation is consistent with Huang et al. (2014), who find that increased optimistic tone is negatively associated with future earnings and cash flows.

The timing of the decision to sell equity is unobservable. As a result, I am unable to distinguish between the two alternative explanations. It is possible that both alternatives have validity. Therefore, I

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[2] The literature uses the terms "change," "unexpected," and "abnormal" optimistic tone. Measurement methods include a first difference, regression model residuals, and factor analysis.

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focus my hypotheses and interpretations on the association, rather than on causation, between changes in optimistic tone and subsequent equity sales.[3]

I expect two factors to mitigate the positive association between changes in optimistic tone and CEO equity sales. First, the Sarbanes–Oxley Act of 2002 (SOX) was intended to improve the overall transparency and reliability of financial reporting, including insider trading. For example, Brochet (2010) finds less information-based insider trading after SOX. Therefore, I hypothesize that a positive association between changes in earnings announcement optimistic tone and CEO equity sales is weaker after the passage of SOX. Second, Rogers, Van Buskirk, and Zechman (2011) find that unusually optimistic earnings announcements are positively related to shareholder class action lawsuits. To reduce litigation risk, firms could write less-optimistic earnings announcements or sell less equity after the optimistic announcement. Therefore, I hypothesize that the positive relationship between changes in optimistic tone and CEO equity sales is weaker for firms that face a higher litigation risk.

I conduct my tests using approximately 20,000 firm-quarter observations from 1998 to 2007. The results support the hypotheses. Specifically, I find a positive association between changes in the optimistic tone of earnings announcements and CEOs' subsequent equity sales and that both SOX and litigation risk mitigate this relation. I compute the direct financial gain to CEOs from selling equity after a more-optimistic earnings announcement and find that it is small relative to their total compensation.

My paper makes several contributions to the literature. First, I contribute to the insider trading literature by showing that insider sales are related to changes in optimistic tone of earnings announcements. This complements prior literature that finds that insider trading is associated with the numerical results in the earnings announcement (Aier, 2013; Cheng & Warfield, 2005; Ke et al., 2003) and overall disclosure quality (Rogers, 2008).

Second, I contribute to the narrative disclosure and textual analysis literature by examining how changes in earnings announcement tone relate to the real economic activities of firm managers. Specifically, I document that changes in optimistic tone are related to individual managers' specific transactions (e.g., CEO sales) in addition to firm performance (Davis et al., 2012) and firm-level transactions, such as mergers and acquisitions and seasoned equity offerings (Huang et al., 2014).

2. Literature review and hypothesis development

There is extensive insider trading literature in finance and accounting. One line of literature concerns whether insiders trade on their private information and, if so, what information (Lakonishok & Lee, 2001). Another stream of research focuses on non-information motivations for trading, including diversification, behavior biases, and taxes (e.g., Jin & Kothari, 2008). For this paper, the most pertinent research is that which concerns the relationship between insider trading and executives' disclosure and reporting choices.

Prior evidence suggests that managers' insider trading is associated with several financial reporting outcomes. Specifically, managers time their trades to reduce litigation risk while increasing proceeds from equity sales. Aier (2013) notes that managers decrease selling prior to reporting a loss as a means to reduce litigation risk. Ke et al. (2003) find that executives use their knowledge of a forthcoming break in a string of earnings growth to sell equity several quarters prior to the break, while Huddart et al. (2007) find that executives trade after earnings announcements but before the 10 K or 10Q is released. Bergstresser and Philippon (2006) and Bartov and Mohanram (2004) state that CEOs sell more equity after managing earnings upward, while Cheng and Warfield (2005) find a positive association between insider sales and just meeting or beating analysts' forecasts.

In addition, insider trading is associated with changes in disclosure. Noe (1999) finds that managers profit from selling after good news management forecasts. Cheng and Lo (2006) build on Noe (1999) by modeling management forecasts and insider trading as endogenously determined activities. Cheng and Lo (2006) find that increased insider trading is associated with an increase in management forecasts. Rogers (2008) finds an increase in disclosure quality before CEOs sell equity and interprets the increased quality as an effort to reduce litigation risk. In addition, Rogers uses the change in liquidity of a firm's stock as a measure of disclosure quality. He does not, however, specify what information contributes to the change in liquidity.

In sum, the evidence suggests that insider trading is associated with the decision to disclose information (i.e., make an earnings forecast) and overall disclosure quality and that CEOs time their sales to occur before reporting bad news (i.e., a loss) and after reporting good news (i.e., beating analysts' forecasts). Given that mangers' trades are associated with the reported numbers in earnings announcements and with firm disclosure activities, it is plausible that CEO equity sales are associated with the manner in which earnings announcements are written.

The literature finds that increased optimistic tone in earnings announcements is associated with abnormal returns around the announcement date (Davis & Tama-Sweet, 2012; Davis et al., 2012; Demers & Vega, 2011; Henry, 2008; Henry & Leone, 2010; Huang et al., 2014). Demers and Vega (2011) find that the unexpected optimistic tone of the earnings announcement is associated with abnormal returns over the subsequent quarter. They interpret their finding as indicating that the "soft" information captured by the optimistic tone of the earnings announcement takes longer to be impounded into price than do numerical data. Feldman et al. (2010) find similar results for the unexpected tone in the Management Discussion and Analysis section of 10 K and 10Q filings. In sum, the literature suggests that the market reaction to changes in optimistic tone follows a similar pattern to the market reaction to unexpected earnings in that there is a reaction at the announcement date followed by a drift over the subsequent quarter.

The implication of the findings in prior research is that managers can sell their equity at a higher price if they sell after an earnings announcement that uses more-optimistic language, even after controlling for the earnings surprise and other quantitative information in the announcement. In addition, trading after the earnings announcement reduces the legal liability related to accusations of illegal insider trading (Huddart et al., 2007). Given these incentives to sell equity after more-optimistic tone in earnings announcements, I test the following hypotheses, stated in the alternative form:

H1. There is a positive association between changes in the optimistic tone of earnings announcements and CEOs' subsequent equity sales.

SOX was generally intended to improve the transparency and reliability of financial reporting. The evidence on the extent to which SOX was successful in this regard is mixed (Chang, Tang, & Krivogorsky, 2011; Cianci, Fernando, & Werner, 2011; Parker, Swanson, & Dugan, 2011). Brochet (2010) finds a larger market reaction to insider trades after SOX. He attributes these results to the SOX requirement that insider trades be reported to the SEC within two days of the transaction. This finding suggests that the transparency of insider trading has improved after SOX.

In addition, Section 302 of SOX requires CEO and CFO certification of periodic reports (including audited financial statements) filed with the SEC. The personal liability created by certification may have led CEOs and CFOs to be more risk averse in all financial reporting and

[3] In untabulated results, the correlation between changes in optimistic tone and future ROA is positive when CEOs do not sell equity but insignificant when CEOs do sell equity. This finding lends credence to the second alternative.

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